PRINTING PRODUCTION

IN THIS ISSUE

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Proper Sharpening of Paper Knives

New Concepts in Newspaper Photocomposition

What Will Be Shown At the Exposition For Letterpress and Specialty Printer

Gravure Shot Shows Final Stage in Plating Process (SEE PAGE 5)

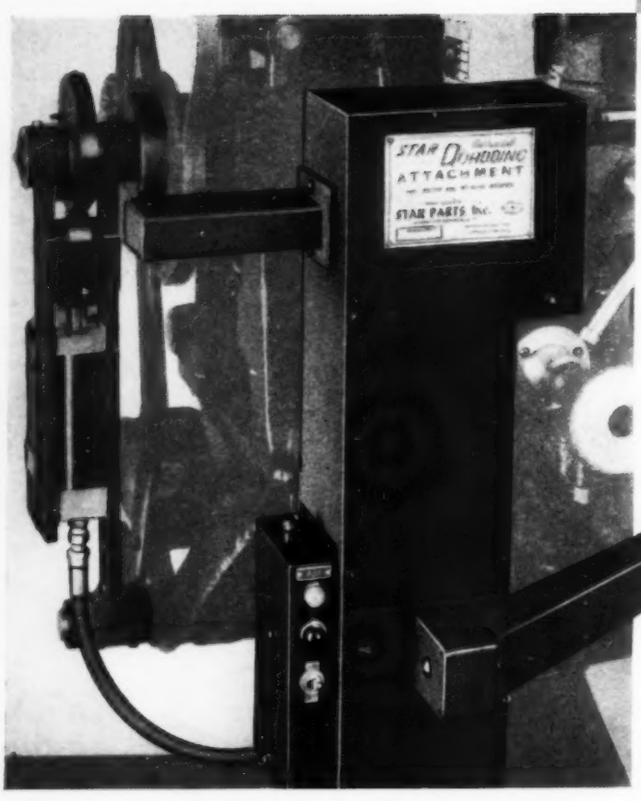
Pass On: _____

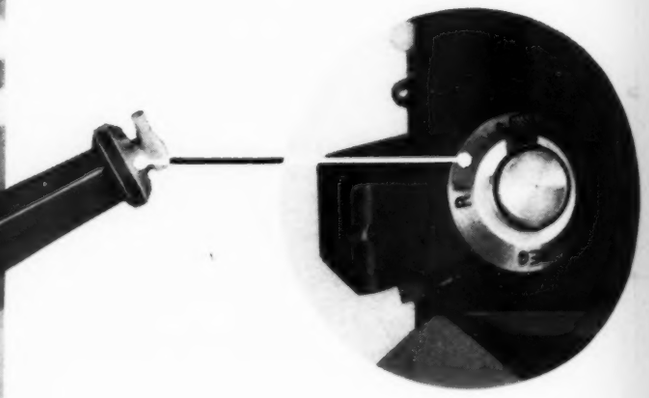
SERVING PRINTING INDUSTRY
PRODUCTION EXECUTIVES EXCLUSIVELY

AND NOW A... 3rd

STAR QUADDER

THE MECHANICAL MODEL





With the addition of a third Quadder to the Star Quadder family, there is now a model to satisfy every requirement. The Mechanical model features a convenient dial selector which controls quadding operations . . . it also provides for justified composition. The Selector Dial is easily seen and reached by the operator, even when a Mohr Saw is in use. When quadding is required, justification drive is automatically locked out.

The new Mechanical model is actuated by Star's simple, efficient hydraulic unit which eliminates the "slap" of jaws meeting matrices. Other standard equipment includes the rack and gear train and the Electro Pump Stop—both originated by Star—as well as the No-Set Delivery Slide, Adjustable Vise Locking Screws and Studs, a Friction Rail Assembling Elevator Gate and the improved Assembler Slide and Brake.

The Mechanical Star Quadder can be synchronized with the Mohr Saw. Measure changes of Vise Jaw, Assembler Slide and Saw are made simultaneously by the Quadder Measure Control Dial. Like all Star Quadders, the Mechanical Model can be applied to any 30 pica Intertype or Linotype, regardless of age. Write for full details.

Precision TRADE ★ MARK Parts ®

STAR PARTS, Inc.

SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO.

AGENCIES: CHICAGO • MINNEAPOLIS • LOS ANGELES • DENVER • SO. ACTON, MASS.

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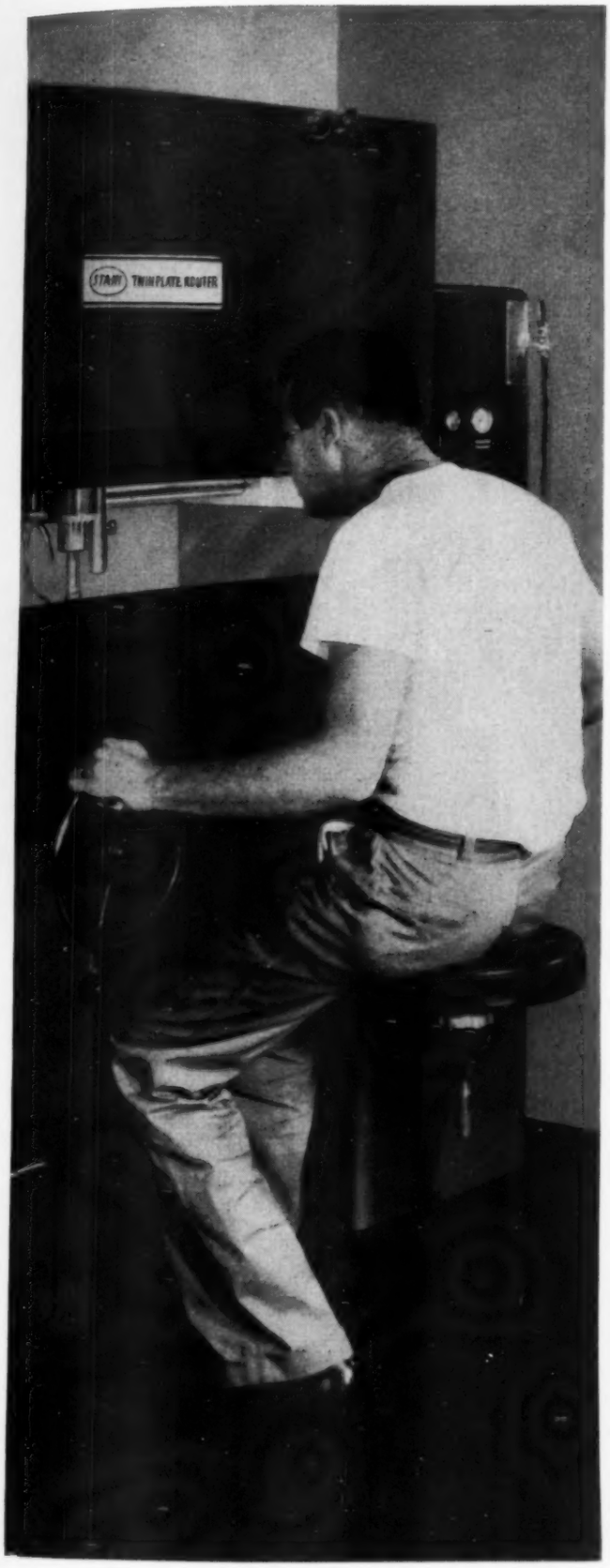
For More Information Circle 167 on Reader Service Card

Satisfied Users Praise Twin-Plate Router . . .



Following are typical reactions from progressive newspapers operating this time and money saving stereoplate routing equipment:

HOUSTON CHRONICLE:

"We have been able to realize a little better than twice as much production as from the single-plate routers . . . Machine has helped us virtually eliminate overtime for routing of colorplates . . . The stereotypers are quite enthusiastic about it . . ."

Donald V. Weber, Production Mgr.

PITTSBURGH POST-GAZETTE:

"It is delivering the expected 100% dividend every time we rout a plate . . . We have trouble getting the men to operate the old single-plate router . . ."

Henry Garland, Mechanical Supt.

SOUTH BEND TRIBUNE:

"Our routing time on spot, three or four color and magazine has been reduced to almost half . . . Our operators would prefer to do all routing on the Twin-Plate . . ."

Royal Rager, Stereotype Supt.

ST. PAUL DISPATCH & PIONEER PRESS:

"It has come up to our every expectation . . . The men enjoy operating it . . ."

A. E. Rosene, Production Mgr.

JACKSONVILLE TIMES-UNION:

We are very pleased with the performance of our Twin-Plate Router. It has lived up to our expectations and your claims."

Robert C. Millar, President

LANCASTER (PA.) NEWSPAPERS:

". . . very much pleased . . . It does fine work and is a very worthwhile time saver. The operating personnel like it . . ."

I. Z. Buckwalter, General Mgr.

The above are only brief excerpts from comments of enthusiastic Twin-Plate users. Detailed "performance reports" from these and other customers are available on request.

STA-HI CORPORATION

235 WEST WASHINGTON BOULEVARD
WHITTIER, CALIFORNIA

For More Information Circle 165 on Reader Service Card

Ask your dealer to demonstrate the Kenro "vertical 18" camera—he can show you how to save money!

this versatile camera will do all this . . .

MAKE LINE AND HALFTONE NEGATIVES—up to 14" x 18". Enlarges to 3X, reduces to ⅓ size with standard Goerz lens. Uses counters and micro dials for precise focusing and sizing. Exposure controlled by automatic reset timer.

MAKE ONE SHOT, RIGHT READING PHOTOCOPIES—new Prismatic Head eliminates need for a negative intermediate. Gives black on white or white on black reproduction of type, drawings, layouts, photographs, enlarged up to 4X, reduced to ½ size. Makes screened type in one shot.

MAKE XEROGRAPHIC EXPOSURES—adjustable xerographic head permits fast, easy exposures with uniform gripper margins. Takes standard 10" x 15" xerographic plate holder.

The Kenro "Vertical 18" Camera is compact, precise, easy to operate. Standard model comes complete with Goerz lens, lights and film head, ready for use inside or outside the darkroom. Available through leading graphic arts and office equipment dealers.

Write for literature and name of nearest demonstrator dealer.

XEROGRAPHIC HEAD
for xerographic exposures

PRISMATIC HEAD
for one shot, right reading photocopies

KENRO GRAPHICS, INC. 25 Commerce St., Dept. G-5, Chatham, N. J.

For More Information Circle 97 on Reader Service Card

New Features . . . Setting New Standards For Excellence . . .

Miehle 61 And 76 Offset Presses

At Miehle, leadership is defined as..."the art of making the best *better!*" Making that definition come alive is the full time task of a dedicated team of highly skilled graphic arts scientists and engineers.

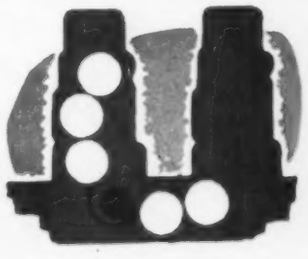
For example, even though the unit-constructed Miehle 61 and 76 Offset Presses have long been unmatched for efficient production, more than forty recently incorporated advances make them even more outstanding. Advances such as ...

Air Glide Sheet Transfer results in more finished sheets of superior quality... sheets are transferred from unit to unit on a cushion of air.

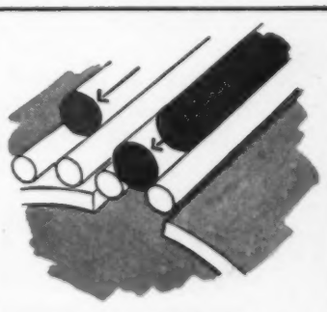
Rotative Ink Vibrator Drive assures color uniformity from gripper edge to tail end of sheet . . . vibrator reversal timing is infinitely variable throughout 360°.

* * *

Go ahead...and stay ahead. Investigate all *the new advantages of the Miehle 61 and 76 Offset Presses.*



Air Glide Sheet Transfer



Rotative Ink Vibrator Drive

THE MIEHLE COMPANY
DIVISION OF MIEHLE-GOSS-DEXTER, INC.
CHICAGO 8, ILLINOIS

The 61—42 x 58″—6500/hr.....Single and Multicolor Presses.....The 76—52 x 76″—6000/hr.

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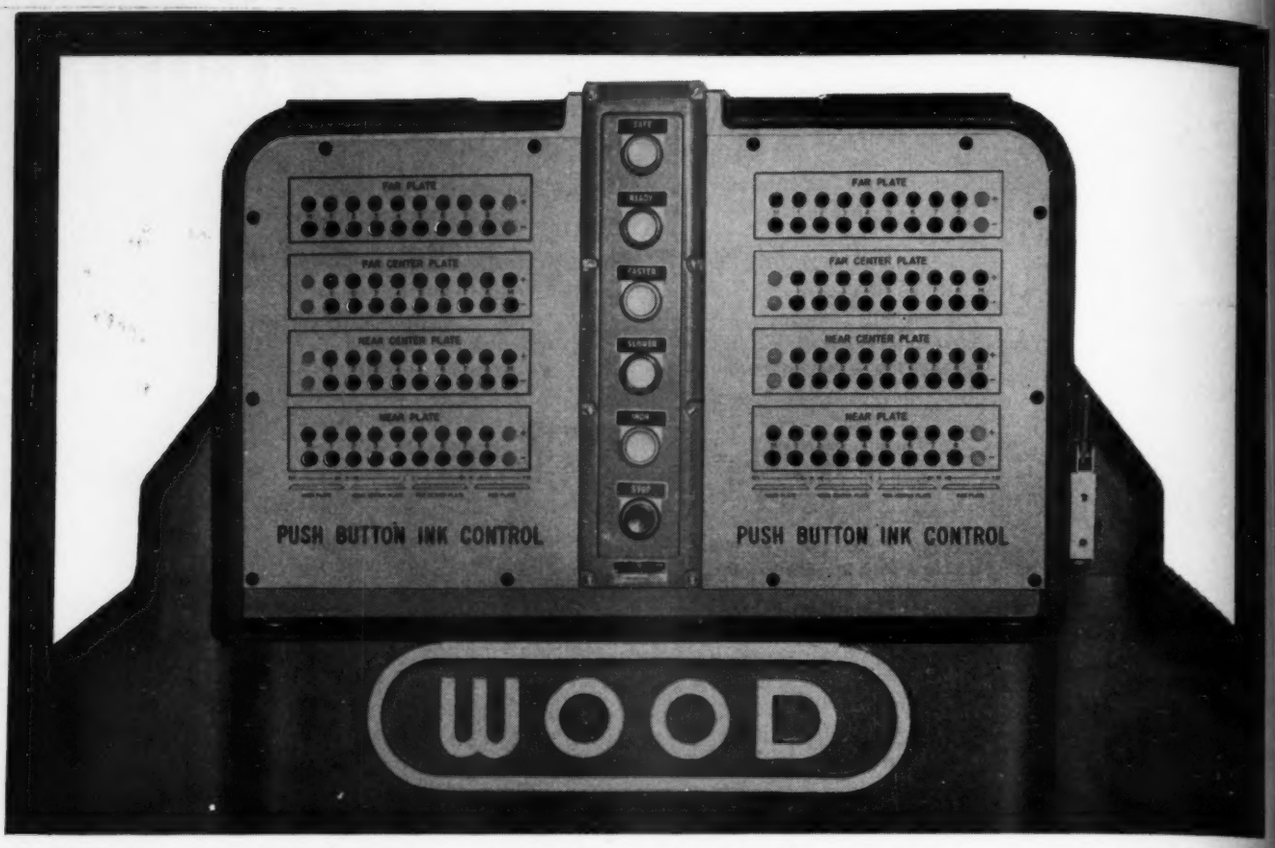

PUSH-BUTTON EYE LEVEL INK CONTROL

An Automatic System developed by

WOOD

that speeds up Newspaper Production

Mounted on the operating side of the new Wood Press Unit at Eye Level, the new Push-Button system of ink control used in conjunction with the Wood Film Feed Inking System, provides the press operator with finger-tip adjustment of uniform ink flow on all columns of standard width eight-column newspapers.

With this system, ink coverage remains uniform throughout the run. Valuable time is saved during the initial ink settings due to the convenient location of the control panel and the fact that a change of ink setting is accomplished in one operation only by pushing a button. The Press Control Push-Button station can be combined with the Ink Control Panel, as shown, thus grouping these controls in one convenient location.

Wood ink controls are activated by a series of plastic push-buttons... Green for plus (+), Red for minus (−) whereby the ink flow is increased or decreased automatically over the page columns by the exact amount desired at the option of the operator. The Push-Buttons provide instant response to operators' judgment in changing color. Provision has also been made in designing the control panel for expansion to nine column page widths at any time.

The Wood Eye Level Push-Button Ink Control System can be furnished as original equipment on NEW Wood Press Units and can also be installed on existing Wood Press Units.

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • Executive & Sales Office: 501 Fifth Avenue, New York 17, N.Y.

MANUFACTURERS OF PRESSES, COLOR UNITS, REELROOM AND STEREOTYPE EQUIPMENT FOR A CENTURY

IF IT'S Wood IT'S GOOD

For More Information Circle 190 on Reader Service Card

MAY 1959
VOL. 89, NO. 8

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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OUR COVER illustration seems to convey the feeling of the space age in that the cylindrical object has the appearance of a missile in position for a moon shot. Getting back to earth and the less glamorous nature of our work, we must accurately identify the object as a rotogravure engraved cylinder being removed from a chrome plating tank. The scene takes place daily in the plant of Western Roto Engravers, Inc., Berkeley, Calif., which provides gravure cylinders for western printers. Other stories on the gravure industry appear in this issue on pages 52 and 53.

LETTERS
TO THE EDITORS

Liked Building Progress

Congratulations on the wonderful section *Building Progress* in your March issue (page 47).

We were pleased to see that several of the new plant layouts were engineered and worked on by Graphic Arts Industry, Inc., Minneapolis. We have had several occasions to work with Paul Ocken, GAI's general manager . . . (whom we consider) one of the outstanding Graphic Arts industry consultants and engineers in the country.

PRINTING PRODUCTION can be proud of the wonderful new magazine it produces. This is a real service to the printing industry.

William Beddor, President
Japs-Olson Company
Mineapolis, Minn.

We appreciated the article which you published in connection with our company (March 1959, page 51) and were highly complimented. We thought the article was well written and presented a graphic description of our set up.

Ernest Walker, President
Ernest Walker Press, Inc.
Louisville, Ky.

Ad Disc Jockeys Spin Same Platters

Just a note to pass along an interesting coincidence that might be amusing to your readers.

Recently Harris was looking for a theme to be used for a mailing on its 136-236 presses, and since it's common practice in the industry to pair-up presses, we chose the combo idea. This led to a

Coincidental last month were two mailing pieces made to appear as records and each bearing the same title. The one at left was produced by Harris-Intertype Corp.; at right is the piece mailed to printers by Dayton Rubber Co.

record format that resulted in the piece, *Music To Make Money By.*

It seems Dayton Rubber Co. was also thinking in terms of music, as witnessed by its mailer that "hit the street" right after ours.

Maybe this tale should be titled "Harris and Dayton Rubber Make Music Together."

W. J. Gaul
Advertising Assistant
Harris-Intertype Corporation

EDITOR'S NOTE: We applaud both Harris and Dayton Rubber for their original ideas. It shows they were both thinking on the same wave length. Someone in our office quipped: "Let's start a 'Printer's Hit Parade'".

Easter Seal Thanks

We are very grateful for the coverage you gave us on the 1959 Easter Seal campaign to help crippled children.

Ohio Society for Crippled Children, Inc.

Great Lakes Coverage

Your report of the Great Lakes Conference (Feb. 1959, page 32) was very well handled.

PRINTING PRODUCTION is received here with much enthusiasm each month. It is a well diversified publication and most informative to all of us in the trade.

Lawrence H. Brune
Press-Stereo Superintendent
Journal Publishing Co.
Hamilton, O.

I was unable to attend the Great Lakes Conference in Detroit this year, but enjoyed reading your coverage of the meeting. PRINTING PRODUCTION always does a good job.

Horace H. Parker
Press-Stereo Foreman
Richmond (Ind.) *Palladium-Item*

Eliminate Handwork Delays
WITHOUT BREAKING BINDERY ROUTINE!
Speed-Klect COLLATOR
This Speed-Klect owner* found, "Small jobs had been running through in routine order, but when a large job came along. . . bindery girls had to handle it piecemeal — at the sacrifice of usual work."
Now — with a Speed-Klect Sheet Collator — *he runs those larger jobs on a production basis . . . right along with run-of-the-hook orders!*
* Name on request
Graphic Arts
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What is BRIGHTYPE®?

What is Brightype? That is a question being asked by a number of people today in the graphic arts field. This page will try to answer some of the more obvious questions about Brightype. If you want additional information send for your free copy of the new Brightype folder about the remarkable possibilities of this new conversion process.

Q. What is Brightype?

A. Brightype is a new process to reproduce metal type forms and letterpress plates **directly** onto photographic film or paper.

Q. In what printing processes would I use type on Brightype film?

A. All offset lithography and gravure use material in film form. Silk screen techniques also use photographic methods to good advantage. Letterpress uses type on film in many cases when photoengraving is involved, and in its newer developments, such as Dow etch, photopolymer and other chemical processes, material on film is playing an increasingly important part. Brightype is adaptable to all of these.

Q. How does Brightype compare in quality with photographic typesetting processes?

A. The Brightype reproduction is of highest quality in sharpness, fidelity and evenness, with none of the occasional faults of conventional printed proofs, such as halations, fuzziness, uneven impression, etc.

Q. How are corrections handled?

A. Author's alterations in copy or spacing, as well as ordinary proofreader's corrections, are made in the usual manner in the metal type form **before** Brightype reproduction is made. There is no need to photograph the form until it has been finally ok'd, and accordingly corrections on film are eliminated.

Q. Can any camera be used in the Brightype process?

A. The Brightype camera has been specially designed for its process. It combines a **light source in motion** with precision engineering to accommodate either type forms or letterpress plates, and Brightype patented features cannot be duplicated on any other camera.

Q. Can I use existing photoengravings or other letterpress plates in Brightype?

A. Brightype reproduces even fine screen halftones **faithfully** by the same preparation methods as used on metal type. These can be done separately, or included in the makeup of the type form, thus furnishing a **single** piece of film combining both halftones and type without any stripping. Line engravings, electrotypes, etc., are similarly handled.

Q. Can worn type or plates be Brightyped?

A. A unique feature of the Brightype camera is its unusual faculty of reproducing rounded-off worn surfaces in restored, almost-perfect form. Mixtures of such worn type combined with brand-new type appear on the film in surprisingly even color.

Q. How large a form can be Brightyped?

A. The Brightype camera photographs up to:

Maximum image size . . . . . 30 inch circle
Maximum rectangle . . . . . 18 x 24 inches

Q. Are there other applications for the Brightype camera?

A. Very fine results have been obtained in photographing mechanical pasteups. The moving light source eliminates pasteup shadows, produces a sharp reproduction, and compensates for less-than-perfect type proofs to some degree.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

For More Information Circle 107 on Reader Service Card

NEWS ITEMS

New England Area Appointment—George W. Shumsky has been named a salesman for Star Parts' products by Hunt-Brown Co., Inc., New England agency for Star Parts, Inc. Shumsky will cover Connecticut, Rhode Island and western Massachusetts as well as the Fall River-New Bedford, Mass. area.

Crown Zellerbach Elevates Two—Promotions of Thomas H. Mayer and Ted M. Steinmetz have been announced by Jack S. Davis, sales manager, Printing Paper Div., Crown Zellerbach. Mayer has been named Eastern district sales representative with offices in New York, N. Y., and Ted M. Steinmetz has been made Midwest sales and service representative with headquarters at the Division's Chicago office.

Neale Joins Intertype—Donald H. Neale has been appointed assistant to William L. Hewitt, vice president of operations, Intertype Company, Div. Harris-Intertype Corp., according to Harry G. Willnus, president. Neale, who was formerly vice president of operations for Lanston Industries, Inc., will make his office at the Intertype plant at 360 Furman St., Brooklyn, N. Y.

NEALE

MORRISON

Represents Rich & McLean—Vincent B. Morrison, jr. has been named to represent Rich & McLean, Inc. in New York City and Westchester County. Morrison has previously served with several newspaper and commercial printing firms in Massachusetts, including the Boston *Herald-Traveler*, the *Globe*, and the *Record-American*.

Fraser General Sales Manager—John R. Cryan has been appointed general sales manager, Fraser Paper, Ltd., at New York, according to Aubrey Crabtree, chairman and president. Cryan succeeds James G. Conley who is retiring after 37 years in the paper industry, but will continue to serve the company in an advisory capacity.

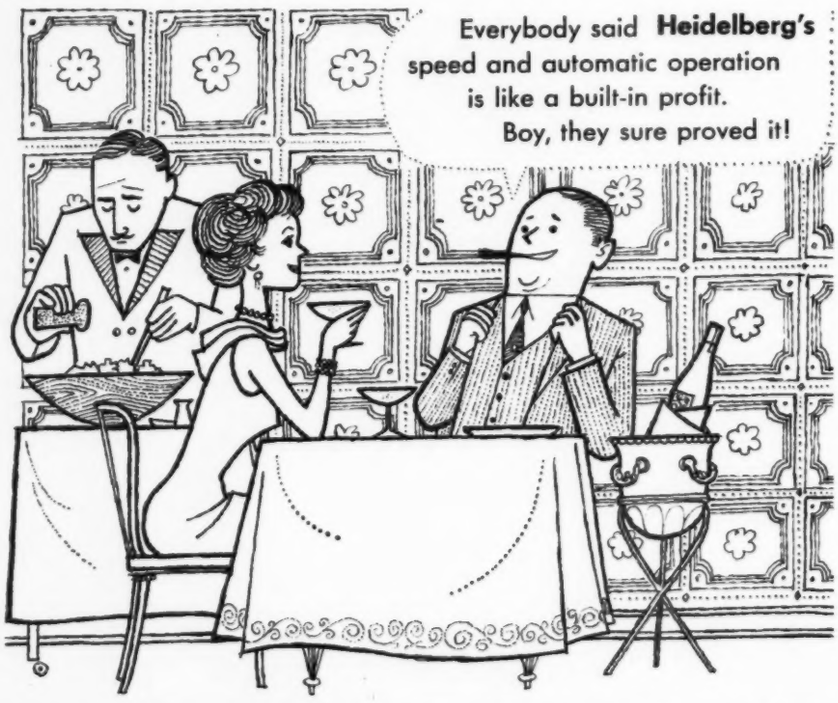
ATF Midwestern Representatives—William F. Allen has been named sales representative for American Type Founders Co. in eastern Nebraska, South Dakota and parts of Iowa. His headquarters will be at ATF's offices at 320 WOW Building, Omaha, Neb. George L. Wasson has been appointed sales representative for ATF in northern Illinois and will make his headquarters in Peoria, Ill. Both Allen and Wasson will work under the general direction of W. J. Taylor, manager of the Chicago branch.

Hobbs Names Sales Manager—Howard K. Lambert has been appointed general sales manager of the Machine Division, Hobbs Manufacturing Co. Larry Damour succeeds Lambert as sales manager of the Cleveland district. The company also announced that representation has been added in Louisville, Ky.; St. Louis and Kansas City, Mo., and Milwaukee, Wis.

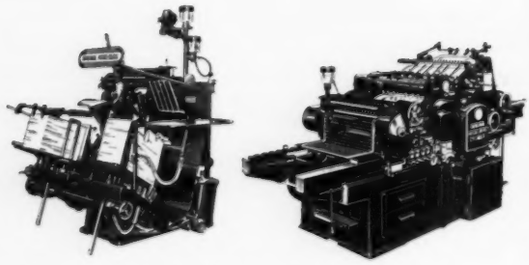
Castcraft Acquires Pittsburgh Firm—The acquisition of Neon Type Foundry, Pittsburgh, by Castcraft Printing Supply, Chicago, was announced recently by A. E. Kreiter, production director, Castcraft. Neon, a 30 year old firm, specializes in the casting of Copperplate Gothic, Bank Gothic and the Century family of type faces, including Century Bold, Century Expanded, and Century Schoolbook.

Majestic Press Reorganizes—Under a new organizational chart, executives will assume new posts at Majestic Press, Inc., of Philadelphia and New York, N. Y., according to Bernard Green, executive vice president. Belle H. Latner will head administration control for the firm. Jack L. Lipkin will be director of manufacturing and Edward H. Meyer will take charge of all traffic mailing and bindery departments.

(*Continued on Page 12*)



LET US PROVE IT TO YOU, TOO!



Request a demonstration and see for yourself how Heidelberg's modern precision letterpress can help you.

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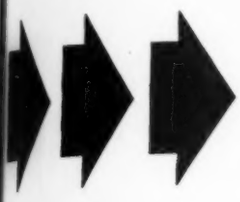

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MAY '59

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READER SERVICE DEPARTMENT

FOR YOUR CONVENIENCE IN REQUESTING MORE INFORMATION

Photograph courtesy—Large Lamp Department, General Electric Company

Sell an idea and you can sell a product. Sell your idea by printing it on HAMMERMILL SUPER-SMOOTH OFFSET

Printing on new brighter white Hammermill Super-Smooth Offset turns ideas into action

Here an eye-catching illustration in a sales promotion booklet inspires a light-conditioned play wall in a new house.

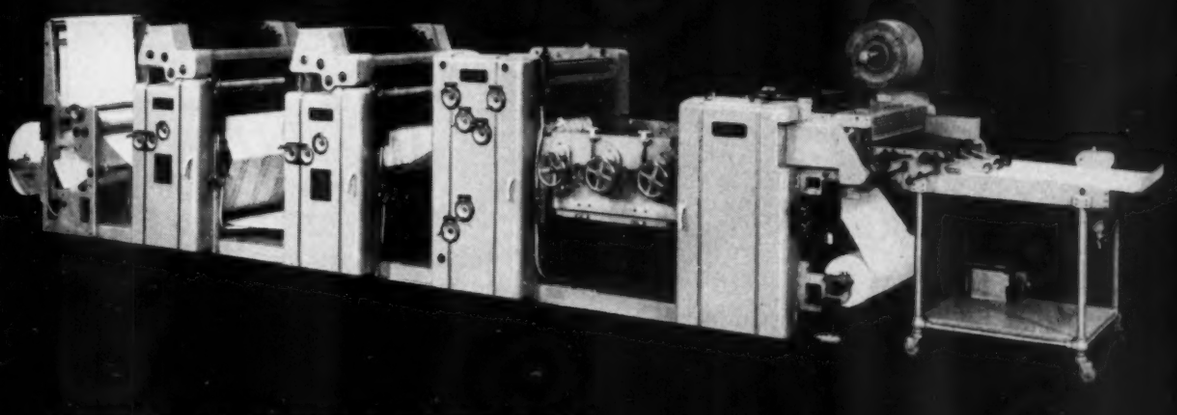
When you want your printed pieces to catch the eye—and the imagination—of a customer, print them on Hammermill Super-Smooth Offset. This superb surface gives color jobs the sparkle of reality, makes black and white beautifully sharp.

Hammermill Offset has 8 distinctive finishes: Wove, Vellum, Laurel, Linen, Handmade, Homespun, Pearl — and Super-Smooth. Vellum finish in 7 colors.

Notice how bright and white Hammermill Super-Smooth Offset really is. This substance 70 insert was printed by offset on a 25 x 38 two color press. Sheet size 25½ x 38, 8 up. Speed 4,000 an hour. Deep etch aluminum plates. Colors printed yellow and blue, then red and black.

Hammermill Paper Company, Erie, Pennsylvania

Speedflex PRESS UNITS "GEAR TOGETHER"



You can't buy a better rotary press than a Speedflex

for faster, most profitable printing jobs!

Speedflex presses are built in units which can be combined for production of the most complicated and varied printing jobs. Speedflex presses such as the one above may be composed of single or double roll stand, one or more offset or rubber plate printers, automatic numbering units, or hot spot carbonizer.

Terminal units made in several styles perform bindery operations such as punching all sizes and types of holes; length, cross and jump perforating; pasting; trimming; rewinding; continuous folding and sheeting with either creeper belt or pile delivery.

These "geared together" units complete the job in one fast, continuous operation, with higher quality and greater precision than on sheet fed equipment. This is the fastest way of printing, the best way, the Speedflex way.

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Chicago, Ill.
81 W. Van Buren St.
RAndolph 6-7977

For More Information Circle 54 on Reader Service Card

News Items

(Continued from Page 8)

New Distributor for Polychrome—Westco Litho Products Co., 1402 Sunset Blvd., Los Angeles, has been appointed exclusive distributor of Polychrome products in Southern California, according to James E. Epperson, vice president of sales.

GRUBB

Reaches Golden Mark in Photoengraving — G. R. Grubb, president, G. R. Grubb & Co., Champaign, Ill., photoengravers, recently celebrated his 50th anniversary in the Graphic Arts. His career began in 1909 with the founding of his photoengraving firm, which today serves clients throughout the United States. G. R. Grubb & Co. has been located at 116 N. Walnut, Champaign for the entire 50 years. During that time however, it has undergone several expansion programs. Sons of the founder are now actively associated in the company and the third generation of the Grubb family are soon expected to enter the business.

Interchemical Promotes Two — Daniel Smith has been named director of Interchemical Corporation's color center, it was reported recently. Smith succeeds F. L. Wurzburg, jr., who is rejoining Interchemical's Printing Ink Div. to direct sales of IPI inks. He will also work on national accounts with large customers needing assistance in color problems.

Two Intaglio Appointments—Wilbert J. Uhlich has been appointed assistant general manager of Intaglio Service Corp.'s Chicago operation, it was announced by George W. Heiland, vice president and Chicago general manager. Also announced was the promotion of Patrick J. Harvey as assistant plant superintendent. In addition to these duties, Harvey will continue as general foreman of the finishing and proofing department.

Indiana Newspaperman Dies—Harry F. Frame, assistant press-stereo foreman, Richmond (Ind.) *Palladium-Item*, died suddenly on March 14. He was 59 and was active in the mechanical activities of the Hoosier State Press Assoc.

Lawson Executive Appointment—E. M. Abrams has been elevated to the post of secretary-treasurer of the Lawson Company, Div. Miehle-Goss-Dexter, Inc., it was reported by D. W. Shulkind, Lawson president. Abrams joined the firm in 1947 as export manager. He has relocated to M-G-D's general office in Chicago.

ABRAMS

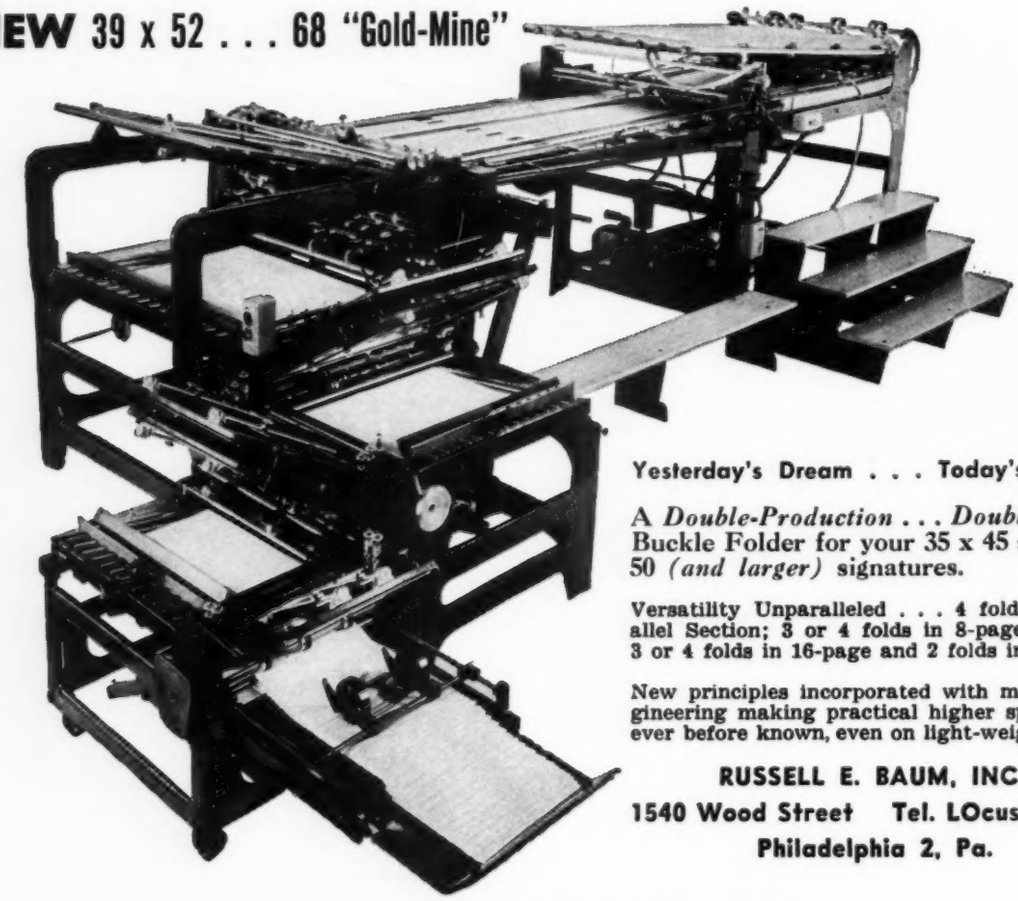
PECKMAN

M-G-D Promotes Peckman—A. E. Peckman was recently appointed to the post of Western district manager for both the Dexter Company and Lawson Company, divisions of Miehle-Goss-Dexter, Inc., according to Carlton Mellick, director of sales. Peckman will be responsible for the marketing of all M-G-D bindery and paper mill equipment in the area west of the Mississippi River as well as the states of Kentucky, Ohio, Michigan, Wisconsin, Indiana and Illinois.

General Binding Vice President — John Lyon was recently appointed vice president in charge of manufacturing, General Binding Corp. Lyon will be in charge of the company's expanding manufacturing operations.

Milprint Sells Philadelphia Plant—Milprint, Incorporated has announced the sale of its plant at 5648-52 Lancaster Ave., Philadelphia, to Ruth A. Fisher, also of

NEW 39 x 52 . . . 68 "Gold-Mine"



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A *Double-Production . . . Double Profit* Buckle Folder for your 35 x 45 and 38 x 50 *(and larger)* signatures.

Versatility Unparalleled . . . 4 folds in Parallel Section; 3 or 4 folds in 8-page Section; 3 or 4 folds in 16-page and 2 folds in 32-page.

New principles incorporated with modern engineering making practical higher speed than ever before known, even on light-weight stock

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For More Information Circle 18 on Reader Service Card

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Simplicity means efficiency.

Functional, streamlined, the Linofilm keyboard is not over-engineered . . . yet it is capable of doing every job demanded in the composing room. Famed industrial designer Henry Dreyfuss planned it to use operators' skills to maximum productivity.

Efficiency is the word for the whole Linofilm *System* which carries phototypesetting through all the processes of the composing room.

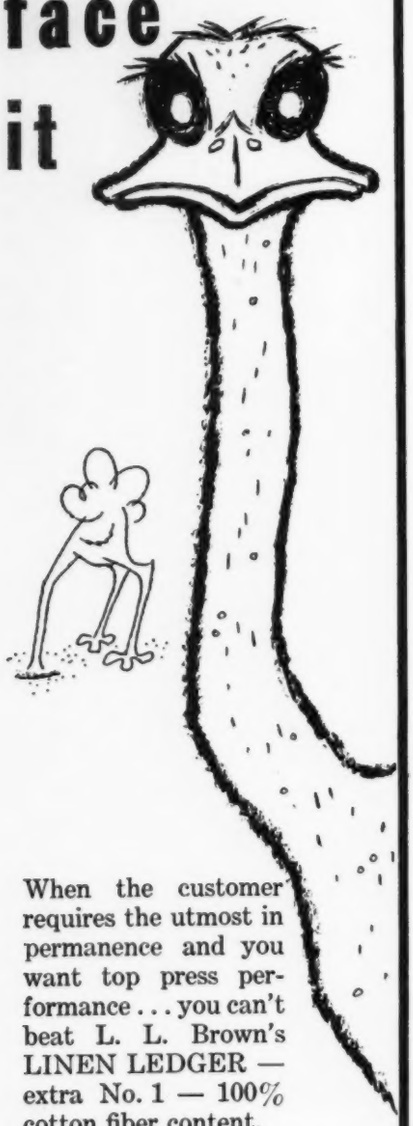
The Linofilm System is now available for sale or lease. Your Linotype Agency will be pleased to provide all details.

LINOFILM *system*

MERGENTHALER LINOTYPE COMPANY
29 Ryerson Street, Brooklyn 5, N. Y.

For More Information Circle 116 on Reader Service Card

let's face it



When the customer requires the utmost in permanence and you want top press performance . . . you can't beat L. L. Brown's LINEN LEDGER — extra No. 1 — 100% cotton fiber content.

"The quality which has earned its reputation"

BETTER COTTON FIBER PAPERS

L. L. BROWN PAPER COMPANY

ADAMS, MASSACHUSETTS

Circle 24 on Reader Service Card

Philadelphia. Milprint also announced consolidation of its Philadelphia area operations in a new printing plant at Downingtown, Pa.

Lusignea Retires—Bill Lusignea recently retired as advertising manager for Paper Manufacturers Co., but has been retained as advertising consultant.

Miehle Executive Dies—Phelps Kelley, 57, executive vice president, Miehle-Goss-Dexter, Inc. died suddenly on March 4. Kelley joined the Miehle Company in 1935. He became a director in 1936 and assumed the duties of assistant to the president. In 1940 he was made a vice president and in 1946 he was elevated to executive vice president. Kelley continued in this position, in addition to his parent company responsibilities, until his death.

Jones Joins Type & Press—Type & Press of Illinois, Inc., has announced the appointment of Harry Jones to its staff. He had been Chicago branch manager for Miller Printing Machinery Co.

Davidson Marketing Manager—Paul Dorion has been named manager of marketing for Davidson Corporation, Sub. Mergenthaler Linotype Co. He will be in charge of sales and market development for the Embee office folding machine and the ProType photolettering machine.

Chemco New York Representatives—Appointments of Tom Lundon and John DeMarco to sales positions with the New York branch of Chemco Photoproducts

LUNDON

DeMARCO

Co., were announced recently. Lundon will cover New York and New Jersey and DeMarco will call on firms in New York and the Long Island area.

Brett Executive Resigns—Brett Lithographing Co., Long Island City, N. Y., has announced the resignation of Charles F. Roberts, secretary and director. Roberts is vice president of the Lithographic Technical Foundation.

Rothberg Retires—Ever Ready Label Corp. has announced the retirement of composing room foreman, Benjamin Rothberg, who has completed 35 years of service with the company.

Massachusetts Newspaper Appoints — The Lynn (Mass.) *Telegram-News* has announced the following composing room appointments: Philip Carpenter, superintendent; Erwin Smith, night foreman, and Eugene Sullivan, John Leslie, and Albert Brazis, assistant foremen.

Lanston Typographic Design Head—Hans Schneider has been appointed head of the Typographic Design Department, Lanston Monotype Co., Div. Lanston Industries, Inc., according to Carl C. Sorensen, vice president of sales. Schneider will be responsible for the development of new Monotype faces and will assist in the design of advertising and sales promotional literature for the Lanston Company.

SCHNEIDER

NOVAK

ATF Eastern Type Division Manager—Ralph J. Novak has been appointed Eastern regional manager of the Type Division, American Type Founders Co., Inc. He will supervise promotional efforts of ATF's 18 type dealers in the Eastern, Southern, and some Midwestern states, under the direction of Jan van der Ploeg, ATF type sales manager. Novak will also promote ATF type among specifiers and type directors, and will be available as a consultant and adviser on typographic problems.

Frye Opens New Plant—Frye Manufacturing Co., Des Moines, Ia., manufacturers of one-time carbon papers for the business forms industry, has placed its new carbonizing plant into full operation. It is claimed to be the largest and most modern plant of its kind in the world and took about nine months to build.

Appointed at Rex Engraving—William F. Griffin has been appointed production manager of Rex Engraving Co., Silver Spring, Md. Thomas Clair has been named production assistant.

Paschel Accepts Teaching Position—Manhattan School of Printing, New York City, has announced that Herbert Paschel has joined the faculty and will teach a special course on color. Paschel is a consultant in the Graphic Arts and author of articles on color.

New York and Penn Names Agent—The appointment of Forest Paper Co. as a stocking agent in New York City for Penn/Brite offset paper has been announced by Marshal M. H. Dana, director of marketing, New York & Pennsylvania Co., Inc. Forest Paper is located at 87 Vadim St., New York.

Chicago Firm Elects—George Geis has been elected president and Robert Geis has been named vice president and secretary of Huron Press, Inc., Chicago. Norman Jacobson, president since the company was founded in 1924, is chairman of the board of directors and also treasurer.

For More Information Circle 120 on Reader Service Card→

FROM 3M COMPANY RESEARCH

Improved quality in B/W or color with 37% savings in makeready*

**makeready after position OK to ready-to-run*

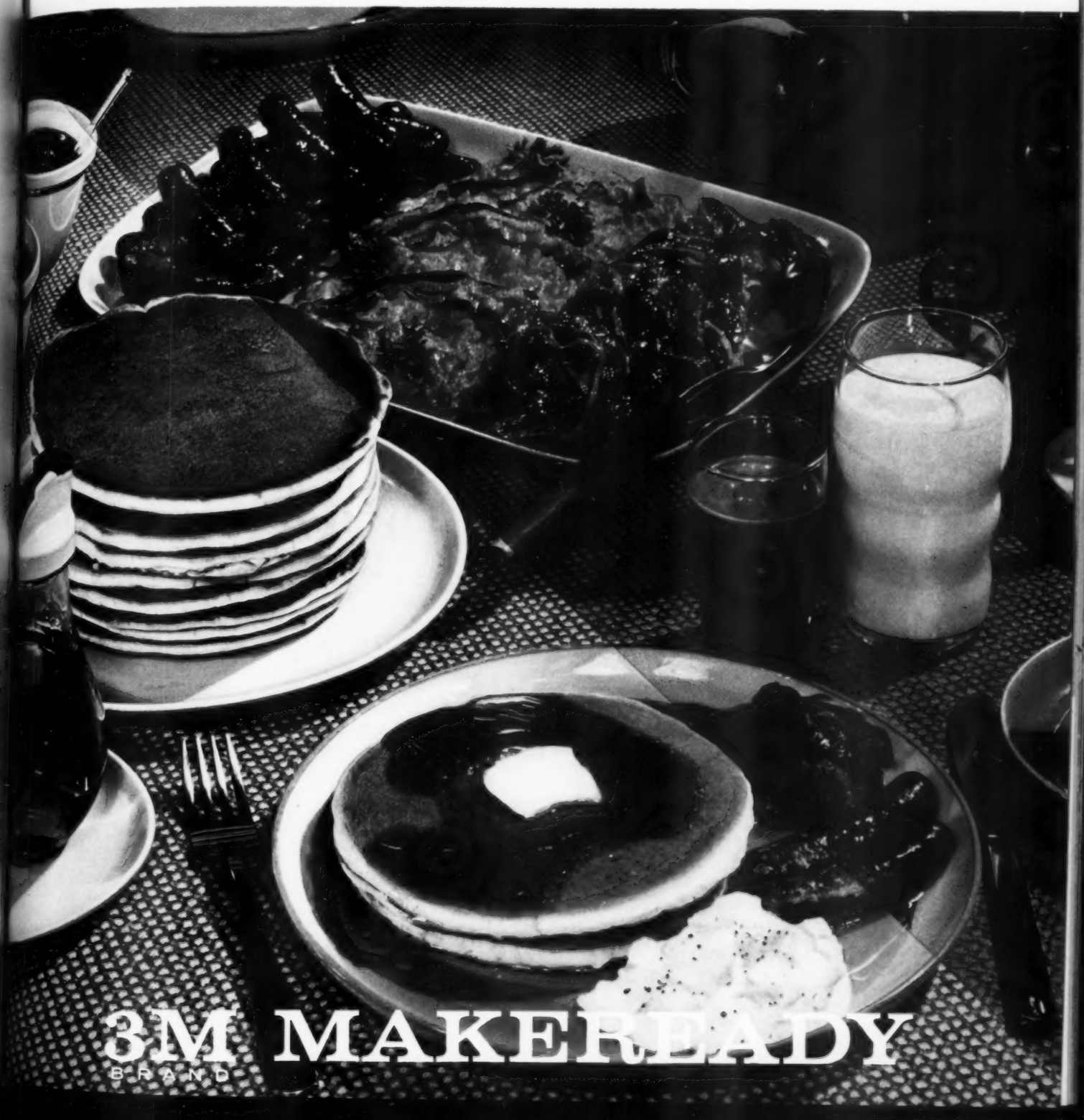


Diagram of the mark-up for a costly, time-consuming handcut overlay for the black plate. 3M Brand Makeready does this same job faster, gives far better quality.

THERE'S no easier way to get sharp pressure correction on any form. After form positioning, simply pull a proof on plastic-coated 3M Brand Makeready Material. Process this proof in the 3M Brand Exposure Unit. The 3M Makeready Material will rise *dot-for-dot* in direct proportion to the amount of ink on the proof. When placed in register under the packing, you get full-range, precise pressure correction.

You save press time, improve printing quality. For a free demonstration and descriptive folder, write: 3M Makeready, Printing Products Division, Minnesota Mining and Manufacturing Company, St. Paul 6, Minnesota.

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...WHERE RESEARCH IS THE KEY TO TOMORROW

THE TERM "3M" IS A REGISTERED TRADEMARK OF MINNESOTA MINING AND MANUFACTURING COMPANY.

On every form... get outstanding quality... eliminate costly hand makeready with electronically-controlled

3M MAKEREADY
BRAND

BACKLASH

HARNESSED FOR NEW PROFITS!

Gear backlash frequently can be a serious production problem. It can throw color out of register. It sometimes breaks the web. It can cause wear on moving parts, which results in excessive maintenance and repair costs.

Hoe engineers have progressively improved this situation over the years, and now, in the new COLOR-MATIC, have introduced an entirely new unit-type couple drive *which effectively reduces the number of gear backlash points to the ultimate limit!*

In this new package unit gear design, the COLOR-MATIC's driving power is transferred directly to each plate cylinder by means of a horizontal cross shaft . . . consequently accumulated backlash has been reduced to an absolute minimum. This simplified system assures you of precise printing registration between couples. Both cylinders start simultaneously and stay in perfect synchronization, even at 70,000 P.P.H., thus eliminating a major cause of web breaks.

This exclusive COLOR-MATIC feature makes any other arrangement obsolete. You owe it to yourself to investigate the COLOR-MATIC's many other outstanding advantages. They all add up to one thing — Real Operational Profits in color or black and white. Why not call or write about seeing the new COLOR-MATIC in action!

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THE WORLD'S FINEST PRINTING EQUIPMENT

For More Information Circle 88 on Reader Service Card

MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assoc. — 1959 Conv., Hotel Statler-Hilton, Dallas, Tex., Oct. 19-21. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA Mechanical Conf.—1959 Conf., Hotel Morrison, Chicago, June 21-24. Mgr. Richard L. Lewis, ANPA Mechanical Dept., 750 Third Ave., New York 17, N. Y.

Book Manufacturers' Institute — 1959 Conf., Hotel Greenbrier, White Sulphur Springs, W. Va., Oct. 21-24. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36, N. Y.

Educational Graphic Arts Exposition—Coliseum, New York, N. Y., Sept. 6-12, 1959. Gen. Mgr. A. E. Giegengack, 5600 Massachusetts Ave., N.W., Washington 16, D. C.

Fifth District Craftsmen's Conf.—1959 Conf., Hotel Miami, Dayton, O., May 22-23. Secy.-Treas. George W. Thompson, Toledo Colortype Co., 1711 Jefferson Ave., Toledo, O.

Flexographic Technical Assoc. — Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36, N. Y.

Graphic Arts Assoc. Executives — 1959 Conv., Hotel Plaza, New York, N. Y., Sept. 4-5. Secy.-Treas. William H. Gary, Managing Director, Printing Industry of Twin Cities, Inc., 2645 University Ave., St. Paul 14, Minn.

Gravure Technical Assoc. — 1960 Conv., Hotel Commodore, New York, N. Y., Mar. 2-4. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20, N. Y.

Great Lakes Mechanical Conf.—1960 Conf., Hotel Schroeder, Milwaukee, Wis., Jan. 17-19. Secy.-Treas. Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press.*

Illinois Newspaper Mechanical Conf.—1959 Conf., Hotel Perre-Marquette, Peoria, Ill. Oct. 10-11. Secy.-Treas. Arthur Kramer, Joliet (Ill.) Harold-News.

Intl. Assoc. Electrotypers & Stereotypers—1959 Conf., Hotel Biltmore, New York, N. Y. Sept. 7-10. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assoc. of Printing House Craftsmen—1959 Conv., Hotel Statler, New York, N. Y., Sept. 5-9. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19, O.

Intl. Graphic Arts Education Assoc. — 1959 Conf., University of Colorado, Boulder, Colo., July 11-17. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1959 Conv., Hotel Statler, New York, N. Y., Sept. 4-5. Secy. Charles S. Tompkins, Tompkins Printing Equipment Co., 1040 W. Grand Blvd., Detroit 8.

Intl. Typographic Composition Assoc.—1959 Conv., Hotel Park Sheraton, New York, N. Y. Sept. 9-12. Exec. Secy. W. E. Switzer, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Newspaper Mechanical Conf.—1959 Conf., Hotel Fort Des Moines, Des Moines, Ia. May 23-24. Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller. Kansas Press Assoc., 701 Jackson St., Topeka, Kans. Missouri Secy-Treas. William A. Bray, Missouri Press Assoc., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assoc. Exec. Dir. Oscar Whitehouse, 1025 Connecticut Ave., N.W., Washington 6, D. C.

Mid-Atlantic Newspaper Mechanical Conf—1960 Conference, Hotel Bellevue-Stratford, Philadelphia, Mar. 17-19. PNPA General Mgr. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assoc. of Litho Clubs—1959 Conv., Twin Cities (Minneapolis-St. Paul,

PROLONG MATRIX LIFE WITH THE NEW STAR TRANSFER CHANNEL

Several improvements in the Star Transfer Channel help prolong matrix life and make the machinist's job easier. An adjustable extension plate, which provides an easy method of aligning the Second Elevator Bar horizontally with the First Elevator Jaws, makes smoother matrix transfer possible.

The Star Channel has hardened rails, which are replaceable, meaning that the Transfer Channel itself should never have to be changed during the life of the machine. Being hardened, the rails will give long life and, should wear eventually occur, they are quickly and economically replaced.

This Transfer Channel also features a spring-loaded rail, which creates a very slight drag on the side of spacebands, to prevent them from swinging during their passage through the transfer channel. This helps to prevent pile-ups in the channel or in the spaceband box. Write for literature and full details today.

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For More Information Circle 168 on Reader Service Card

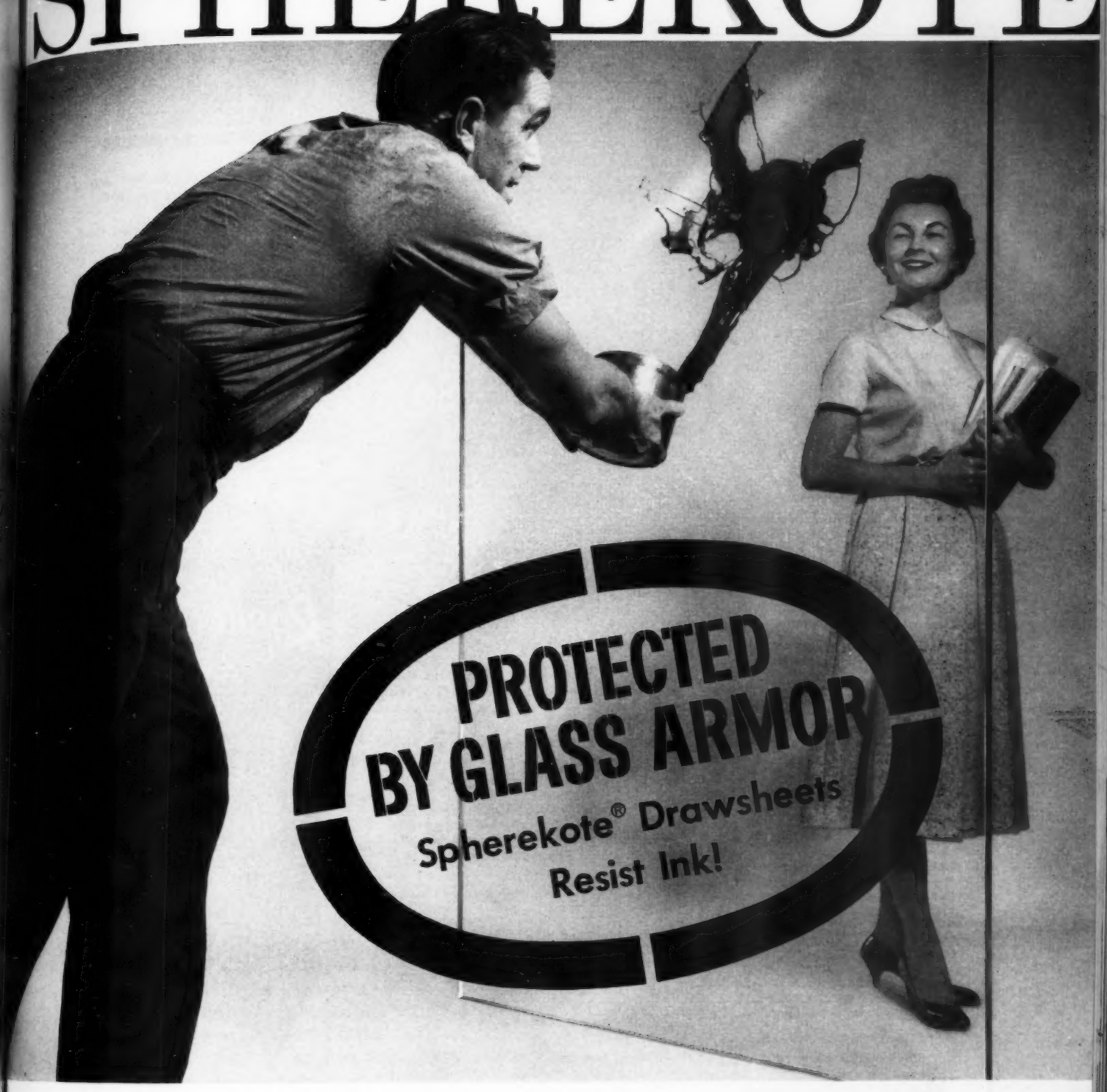
40th Annual Convention

Golden Anniversary Time
New York in '59

Statler Hilton Hotel, New York
September 5 to 9

For More Information Circle 120 on Reader Service Card→

SPHEREKOTE



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She's safe behind a tough glass shield that repels ink! And your press runs are safe from first impression offset when you use *glass armored* "SPHEREKOTE" Drawsheets. This smooth surface, armored with millions of tiny glass beads actually *resists* ink transfer. You always get the sharper, cleaner black and white or ROP color reproduction your advertisers demand. Your 3M representative and "Printer-Scientists" of 3M's Printing Products Research Laboratory are ready to help you with any printing problem. For details—a sample swatch of "SPHEREKOTE" Drawsheet, write: MINNESOTA MINING AND MANUFACTURING COMPANY, DEPT. FM-59, ST. PAUL 6, MINNESOTA.

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Circle 19 on Reader Service Card

Minn.), June 11-13. Exec. Secy. Fred A. Schulz, Buckbee Mears Co., Toni Building, St. Paul 1, Minn.

National Assoc. of Photo-Lithographers—1959 Conv., Hotel Muehlebach, Kansas City, Mo., Nov. 18-21. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, N. Y.

National Paper Trade Assoc.—Secy J. H. Londergan, 220 E. 42nd St., New York 17, N. Y.

National Printing Equipment Assoc., Inc.—1959 Conf., Hotel Waldorf Astoria, New York, N. Y., Sept. 9-10. Secy. James E. E. Bennet, 140 Nassau St., New York 38, N. Y.

National Safety Council Printing and Publishing Section—1959 Meeting, Hotel Conrad Hilton, Chicago, Oct. 20-24. Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Composing Room Executives Assoc.—1959 Conference, Hotel Roger Smith, Waterbury Conn. May 16-17. Secy. Lewis R. Greene, Westerly (R.I.) *Sun.*

New England Newspaper Mechanical Conf.—1959 Conf., Hotel Statler-Hilton, Boston, Mass., Oct. 17-18. Secy.-Treas. Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Newspaper ROP Color Conf.—1959 Conf., Hotel Biltmore, New York, N. Y., Sept. 29. Secy. Arthur Brashears, American Assoc. of Newspaper Representatives, 141 E. 44th St., New York, N. Y.

New York State Capital District Mech. Conf. — Dir. Floyd Laurenty, Albany (N. Y.) *Times-Union.*

Northwest Mechanical Conf.—Secy.-Treas. Ralph N. Carson, Linecasting Instructor, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis, Minn.

Pacific Newspaper Mechanical Conf.—1959 Conf., Hotel U. S. Grant, San Diego, Calif. Sept. 25-27. Secy. Fred Moyer, Sr., 6630 Mayflower Ave, Bell, Calif.

Packaging Institute Assoc.—1959 Meeting, Hotel Statler, New York, N. Y., Nov. 16-18. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17, N. Y.

Printing Industry of America—1959 Conv., Hotel Waldorf-Astoria, New York, N. Y., Sept. 6-10. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1959 Conf., Sheraton McAlpin Hotel, New York, N. Y., May 18-20. Managing Dir. Robert E. Rossell, 5728 Connecticut Ave. N.W., Washington 15, D.C.

Screen Process Printing Assoc., Intl.—1959 Conv., Hotel Statler, New York, N. Y., Oct. 31-Nov. 2. Exec. Secy. Robt. H. Blundred, 549 W. Randolph St., Chicago, 6.

SNPA (Eastern Div.) Mechanical Conf.—1959 Conf., Hotel Dinkler-Plaza, Atlanta, Ga., Aug. 9-11. Secy. John E. Johnson,

Southern Newspaper Publishers Assoc., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1960 Conference, Hotel Marion, Little Rock, Ark., Mar. 6-8. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assoc. — Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assoc. of the Graphic Arts—1959 Conv., Hotel Manger, Rochester, N. Y., June 15-17. Secy.-Treas. B. L. Sites, 421 Sunnyside Ave, Elmhurst, Ill.

Offset plate-making's a "breeze" with the RP21 (illustrated)! Completely enclosed carbon arc lamp and printing frame combination; completely automatic. Pays for itself in one year! Makes plates up to 21" x 24" in size; takes up only 28" x 32" floor space. Simplified control panel. Other models available. Write for Bulletin 230B.

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by the great names in the newspaper industry

OVER THE YEARS . . . 83 to be exact . . . SCOTT presses have established a reputation for dependability and economical operation. Their list of users includes many of the most famous newspaper plants in the world. The mechanical and engineering skill that has gone into their making is the result of many years' experience and an intimate knowledge of what the newspaper industry wanted and obtained.

The SCOTT touch of talent in manufacture and design saves money for all of the newspapers, large and small, that have been printed on SCOTT presses. Dependability is their big feature . . . maintenance is notably low . . . press failure just don't occur.

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WALTER SCOTT & CO.

SCOTT presses

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BUILDERS OF PRESSROOM AND REELROOM MACHINERY AND EQUIPMENT SINCE 1875

For More Information Circle 156 on Reader Service Card

Eliminating Gear Streaks in Printing

We get gear streaks on some of our printing jobs and not on others. If the gears of an offset press are bad, why don't we get streaks on all of our jobs? This question was answered by Charles W. Latham, lithographic consultant to New York Employing Printers Assoc., in a recent bulletin to members.

The cylinder gears on a press are only secondary in forming the type of streaks that are known as gear streaks. Actually it is a group of other circumstances that cause such streaks. If conditions are just right, a press with perfect gears can be made to streak.

American presses are equipped with bearers and when these are set properly, they help to overcome the conditions that cause streaks. First set up the bearers in the approved method.

Another thing that contributes to streaks is high gloss coated paper. We cannot do anything about this, but it may be the reason why presses only streak on certain jobs. Another cause that is in the same category is flat tints above the 50% value. Such tints will show up the tendency of a press to streak more quickly than any other type of image.

Grainless Plates Streak More

Grainless plates have more tendency to streak than grained plates because of the lack of friction between plate and blanket. Soupy ink can also contribute to streaks because of its lack of tack. So even a press that has good gears may streak at times when there is a combination of conditions that invite streaks.

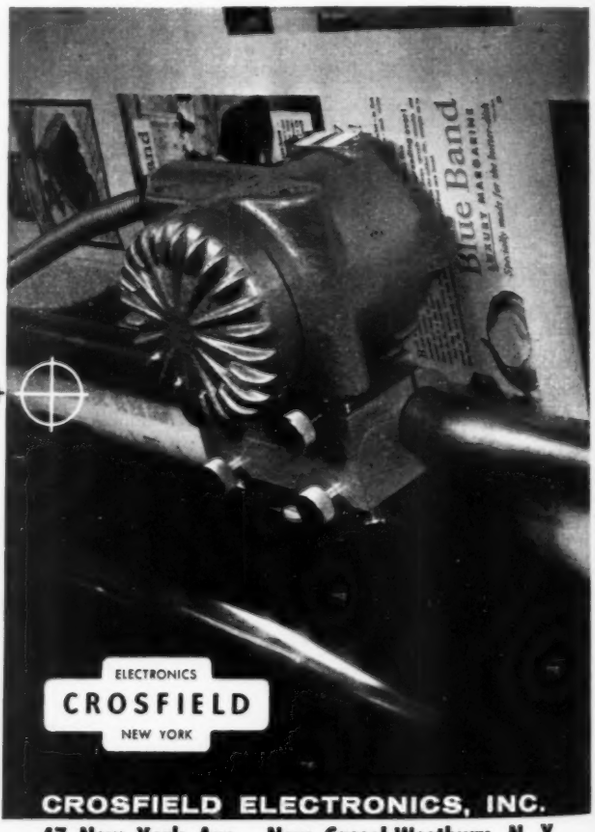
The tendency for a press to streak is brought about by the blanket trying to drive the plate cylinder or the back cylinder, and the gears acting as brakes. Properly set bearers can do much to reduce the driving of the plate cylinder by the blanket cylinder. But there are no bearers on the impression cylinder so we must take other measures.

To keep the blanket from trying to drive the impression cylinder faster than the gears will allow it to go, we must reduce the diameter of the blanket cylinder. In other words if your press has a tendency to streak, try packing the blanket to a point below its bearer surfaces. This will make it necessary to overpack the plate and to move the impression cylinder closer. This can be done on most presses.

Another thing to remember is that these streaks are caused by momentary slippage of the blanket, either on the plate or on the paper. A glazed blanket will slip and streak more easily than one in good shape. Scrub the blanket thoroughly with Lestoil and pumice. Also keep pressures at a minimum.

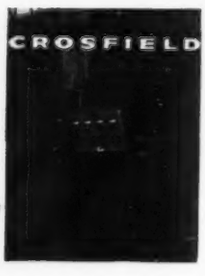
Please take a look at your address on the wrapper in which PRINTING PRODUCTION is sent to you at your place of employment. If it isn't correct, please tell us about it on the special postcard found in this issue.

CROSFIELD REGISTER CONTROLS THINK AHEAD



GET MORE PEAK QUALITY — MORE PRODUCTIVE TIME — SEE STARTLING REDUCTIONS IN WASTE WITH THESE CROSFIELD REGISTER CONTROLS

By measuring both errors and rates of change of errors, Crosfield Controls predict mis-register in advance and correct accordingly. They eliminate overcorrecting, undercorrecting and hunting — even during speed changes and pasting.



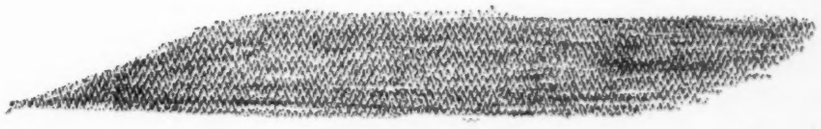
CROSFIELD PREDICTOR CONTROLS
- Color Register
- Web Sidelay
- Folders
- Sheeters
- Die Cutters
- Web Inserters

Write for the Crosfield brochure, today

CROSFIELD ELECTRONICS, INC.
47 New York Ave. New Cassel-Westbury, N. Y.

Mat Pak gets editions on the street—fast

MATRIX BACKING



cuts mat processing time in half, saves money!

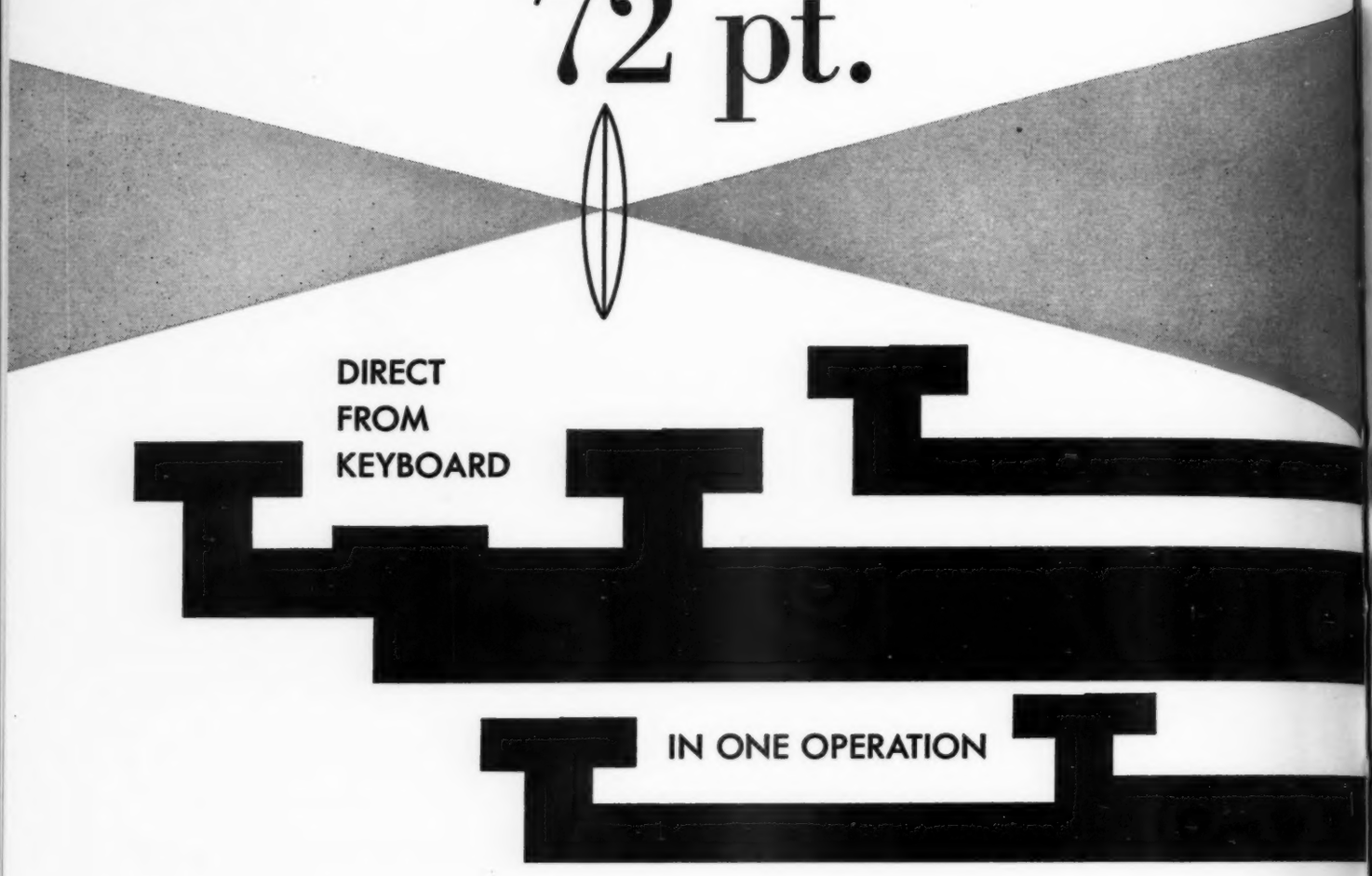
Mat Pak gives you better plates and half-tones with deep, automatic, uniform packing—quality reproduction at less cost. With Mat Pak, your processing time is cut in half to give extra speed from composing room to press room, speed needed to meet close deadlines. Mat Pak has been used with greatest success in full production by leading newspapers for as long as two and one-half years. For your newspaper, Mat Pak will help curb rising production costs and ease the manpower shortage. Give Mat Pak a trial. Write to Kimberly-Clark Corp., Neenah, Wisconsin, Dept. Number PP- 59.

Mat Pak is a trademark of KIMBERLY-CLARK CORP.

Kimberly-Clark Corporation
NEENAH, WISCONSIN

For More Information Circle 101 on Reader Service Card

up to 72 pt.



NEW SUPER DISPLAY FOTOSETTER sets all sizes of type from 3 pt. through 72 pt. direct from the keyboard on paper or film. Extra operations and equipment required by other systems are eliminated. You save time, materials, floor space, equipment and personnel. Now only one operation is needed to set better than 95% of your display composition.

The Super Display Fotosetter gives you block composition in all the sizes, in any face you need, direct from the keyboard, ready for paste-up in less than five minutes. Only the Fotosetter gives you these advantages.

New folder just off the press . . . write for your copy.

HARRIS INTERTYPE CORPORATION

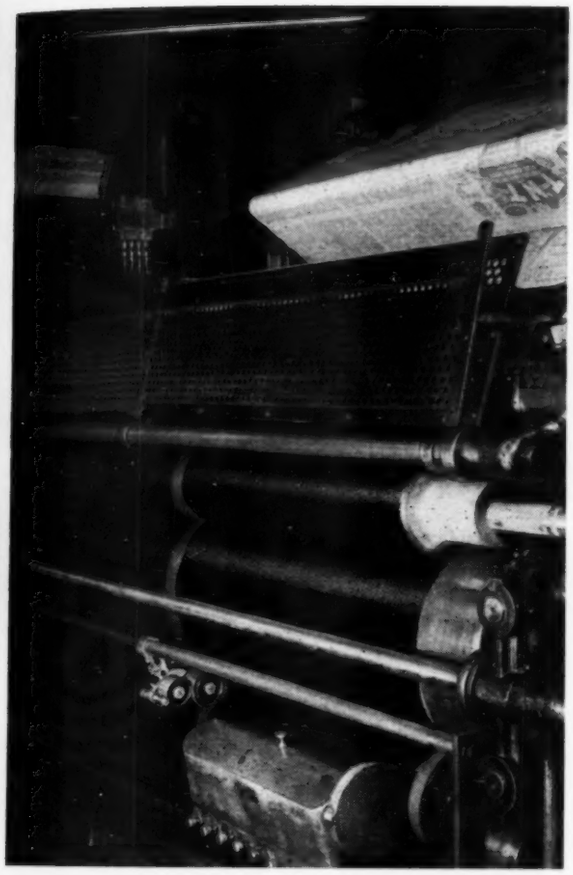
INTERTYPE COMPANY 360 FURMAN STREET, BROOKLYN 1, N. Y.

A Division of Harris-Intertype Corporation

Fotosetter is a registered trademark.
Set in Fotosetter Bodoni and Futura families.

The DAYCO COMBINATION... for the Finest in ROP Color

Dayco Tru-Set Rollers and Color Separators offer quality and economy

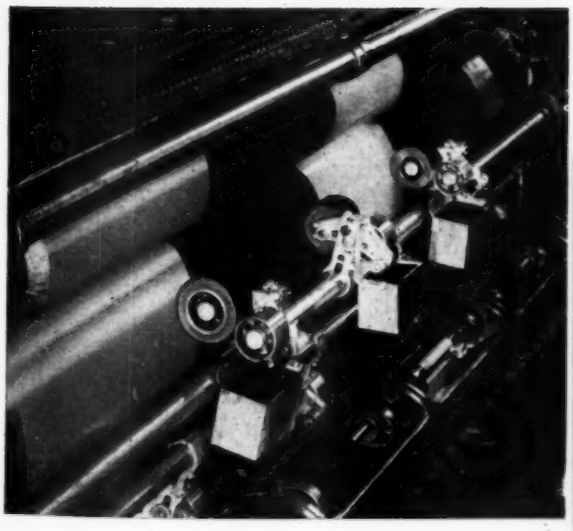


Dayco Tru-Set Rollers combine the day-in, day-out durability you expect in your regular edition rollers with a velvety smooth surface that's perfect for laying any ink. No need to change inks, paper, plates or your Dayco rollers. For "quick-as-can-be" ROP color, with "no guess-work" color control, simply adjust your Color Separators and you're set to go.

To add to their economical maintenance, Dayco Rollers have just the right degree of hardness, a resiliency that protects against marking or column scoring, a high tensile surface and no excessive swelling. And they're fire-resistant for greater pressroom safety.

Call your Dayco representative and order a set of Dayco Tru-Set Rollers with this assurance . . . either you're satisfied or we'll make good. And, for better performance from your new presses, insist that they come fully equipped with Dayco Rollers.

You can contact your Dayco representative by writing or wiring the Dayton Rubber Company, Dayco Division, Dayton 1, Ohio.



You can shift your color splits in minutes with simple, easy-to-adjust Dayco Color Separators . . . and print as many as 8 extra black and white pages per press without cutting rollers.

Dayton Rubber

THE DAYTON RUBBER COMPANY, Dayton 1, Ohio

West Coast Distributors: Tillicum Rubber Company, Lacey, Washington; Far West Ink Co., Seattle, Washington; Walter Lawrence Co., Los Angeles, George Shively Co., San Francisco; Albert Lodymon, Dallas, Texas

DAYCO ROLLERS . . . for Offset, Letterpress, Newspaper, Corrugated, Boxboard, Gravure, Flexography, Coating, Graining, Steel Mills.
Dayco Offset Blankets, Dayco Fountain Dividers, Dayco Color Separators.

For More Information Circle 48 on Reader Service Card

IDEAL

DEPENDABLE PRESS AIDS

Ideal products help maintain pressroom efficiency and finished-product quality:

Ideal Tantone (Synthetic) Lithograph Rollers
Ideal Masterlith (Vulcanized Oil) Lithographic Rollers
Lithocraft Lithographic Rollers
Durock Ink Storage Drum Rollers
Koraltone (Plastic) Typographic Inking Rollers
Plast-O-Damp® System of Measured Moisture
Synthox (Synthetic) Letterpress Rollers
Ideal Typocraft (Solid Synthetic) Rollers
Ideal Inkmaster (Vulcanized Oil) Distributor Rollers
DX Synthetic Newspaper Rollers
Flexocraft Rollers
Impression Rollers (all types)
Ideal Process Coated Rollers
Ace Graytone Rollers
Coating and Varnishing Rollers
Textile Rollers
Rotogravure Impression Rollers
Paper Mills Rollers
Ideal Photoengravers' and Litho Proof Rollers
Waxing Machine Rollers
Rubber Gluing Rollers
Tanning Machine Rollers
Rubber Friction Rollers (all types)
Pull and Draw Rollers
Rubber Blanket Rollers
Fabric-Covered Rollers

Other Ideal Products Guaranteed to Render Exceptional Service

Ideal Process Surfacing Machines
Ideal Automatic Sectioning Machine (for split-fountain work)
Cutting Rubbers
Rollers Composition
Surfacing Compositions
Special Rubber and Synthetic Molded Items
Rubber and Synthetic Plate Gums
Sticktite Rubber Plate Adhesives
RE-NU-ROL Roller and Blanket Conditioner

IDEAL ROLLER
& MANUFACTURING COMPANY

CHICAGO, ILLINOIS — *2312 West 24th Street*
LONG ISLAND CITY, N. Y. — *21-24—39th Avenue*
HUNTINGTON PARK, CAL. — *6069 Maywood Avenue*
CHAMBLEE, GA. — *5238 Peachtree Road*

For More Information Circle 92 on Reader Service Card

"This automatic bundler saves 46 man-hours a week and helps get the paper out an hour earlier,"

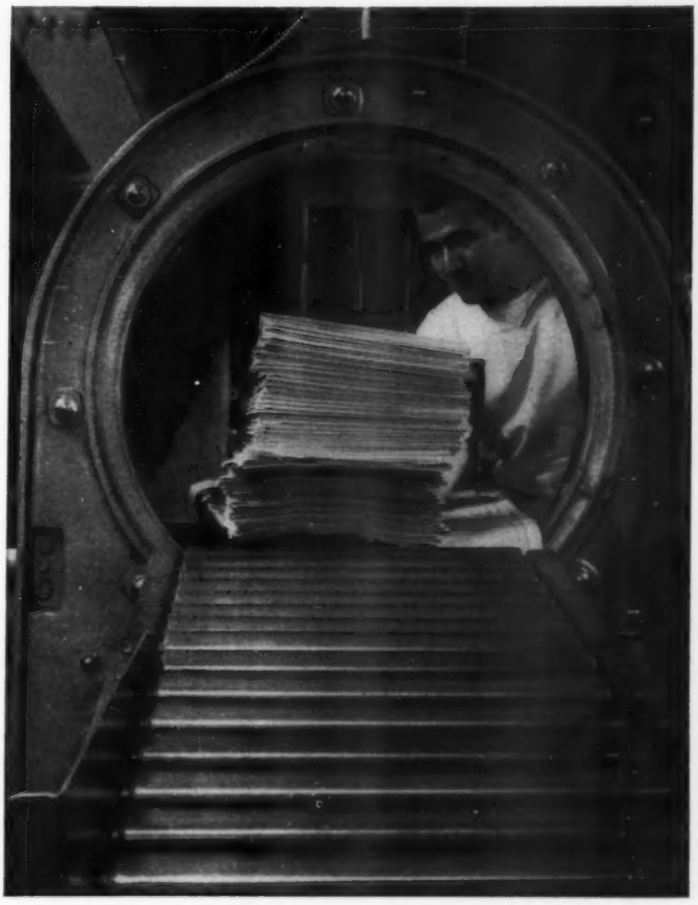
SAYS CONWAY C. CRAIG, PUBLISHER, THE CORPUS CHRISTI *CALLER-TIMES*

Mr. Craig had several good reasons for selecting the completely automatic USS Steel Strapping Machine Model 12 when he was equipping the new mail room of the *Caller-Times*. In his words: "We're saving 20% to 25% per linear foot on the price of the strapping (because we can use the lighter #18 gauge). And we selected a versatile machine that is unique in its ability to bundle any number of newspapers, from 4 to 14 inches thick, without special adjustment. When our new presses are operating at capacity, this USS Model 12 Steel Strapping Machine will reduce the packaging costs of our newspaper bundles by one-third of what they were in the past."

Free Technical Assistance. Our Strapping Specialists would like to assist you with *your* packaging or bundling problems. Their recommendations are based upon years of experience in helping plan a variety of packaging and bundling procedures.

For further information about the advantages of USS Steel Strapping, both round and flat, and the applications of our automatic, semi-automatic, powerized and manually operated tying machines, please use the coupon below.

USS is a registered trademark



The completely automatic Model 12 Steel Strapping Machine compresses, wraps, tensions and ties any bundle of newspapers from 4 to 14 inches thick. Lightweight, high-tensile #18 gauge Steel Strapping is economical and efficient.

A Complete Strapping Service . . . Strapping—Tools—Technical Assistance

U. S. Steel Supply Division of United States Steel

USS Steel Strapping formerly Gerrard Steel Strapping

U. S. Steel Supply Division
U. S. Steel Corporation
208 South LaSalle Street
Chicago 4, Ill.

Please send me a free copy of your Sweet's Catalog Insert.

Name_____

Company_____

Address_____

City_____ **State**_____

For More Information Circle 70 on Reader Service Card

Certified
BLUE RIBBON MATS

A Blue Ribbon Mat for every advertising need

Depth, clarity, uniformity make Certified Blue Ribbon Mats, baked on the form, a symbol of quality in newspaper advertising campaigns. The inclusive Blue Ribbon line offers a special product for each situation.

Besides the Blue Ribbon CC Mat described, Certified offers you—

ROP Blue Ribbon UC Mats

These may well be your choice for ROP Color or general advertising purposes. They have a sensitive base with coating tough enough to withstand the pull of undercut halftone dots. Suitable for vacuum casting of ROP curved plates for newspapers.

Blue Ribbon Regular Mats

Sensitive base and coating adapt this mat to reproduction of copper, zinc or plastic engravings in flat casts.

Blue Ribbon BC Mats

Sensitive base with coating that gives increased resistance to undercut dots.

Blue Ribbon UCR Mat

Specially developed for situations where undercutting of halftone dots is frequent.

Sell full page color

executed with the aid of

ROP Blue Ribbon CC mats

baked on the form and ready for newspaper curved plate casting

Since the advent of Blue Ribbon CC Mats, newspapers and advertisers have commanded superior facilities in securing full page color free from disfiguring faults of register.

Blue Ribbon CC Mats, molded by direct pressure and baked on the form, go directly into the newspaper casting box for final curved casts, as many as desired.

There is no substitute for register. A page with the same expense of art, engraving and typography may be a thing of beauty or an eyesore due to mat shrinkage.

All Blue Ribbon Mats are notably free from shrinkage. With the Blue Ribbon CC Mat, you avoid the hazards of double stereotyping in which a shrinkage type of mat is used for the final mold.

Papers having direct pressure facilities or those enjoying friendly relations with a commercial shop, thus equipped, will find new stimulus for profitable business by exploring the possibilities of Blue Ribbon CC Mats.

CERTIFIED DRY MAT CORPORATION

555 Fifth Avenue, Dept. M New York 17, New York

For dependable stereotyping, rely on Certified Dry Mats

Certified DRY MATS

For More Information Circle 36 on Reader Service Card

Built by GOSS ...Proved by performance

REELS
TENSIONS
PASTERS

Outstanding performance of Goss equipment is the solid base of the Goss reputation for leadership. This is proved by the consistently high production and dependable operation of Goss Reels-Tensions-Pasters in the reelrooms of an impressive list of major newspapers.

The web splicing operation was made fully automatic for the first time when Goss applied the Paster Pilot to Reels-Tensions-Pasters. The operator simply pre-sets the Paster Pilot, then the entire cycle is controlled automatically—at full press speed. Not only is production increased, but newsprint is conserved since a minimum amount of paper is left on the core.

The simple, dependable, fully enclosed Paster Pilot is only one of many refinements developed by Goss to make even more efficient and productive the basic design features of the Reels-Tensions-Pasters.

THE GOSS COMPANY

Specialists in newspaper, magazine and roto presses.

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.

The leader in graphic arts engineering and manufacturing industry-wide and world-wide.

These Leading Publishers Selected GOSS Reels

Mobile (Ala.) Press Register
Tucson (Ariz.) Citizen-Star
Los Angeles (Calif.) Examiner
San Bernardino (Calif.) Sun-Telegram
San Francisco (Calif.) Chronicle
Stockton (Calif.) Record
Denver (Colo.) Catholic-Register
Bridgeport (Conn.) Post-Telegram
Hartford (Conn.) Times
New Haven (Conn.) Register
Washington (D.C.) Post & Times-Herald
Washington (D.C.) Star
Miami (Fla.) Herald
Tampa (Fla.) Tribune
Atlanta (Ga.) Journal & Constitution
Chicago (Ill.) Daily News
Chicago (Ill.) Sun-Times
Chicago (Ill.) Tribune
Chicago (Ill.) Wall Street Journal
Peoria (Ill.) Journal-Star
Springfield (Ill.) State Journal & Register
Ft. Wayne (Ind.) News-Sentinel
Gary (Ind.) Post-Tribune
Hammond (Ind.) Times
Indianapolis (Ind.) Star-News
Lafayette (Ind.) Journal & Courier
Cedar Rapids (Iowa) Gazette
Baton Rouge (La.) State Times & Advocate
Shreveport (La.) Journal & Times
Detroit (Mich.) Free Press
Detroit (Mich.) Times
Saginaw (Mich.) News
St. Paul (Minn.) Pioneer Press-Dispatch
St. Louis (Mo.) Globe Democrat
Omaha (Nebr.) World-Herald
Camden (N.J.) Courier-Post
Passaic (N.J.) Herald-News
Albuquerque (N.M.) Tribune & Journal
Jamaica (N.Y.) Long Island Press
New York (N.Y.) News
Durham (N.C.) Herald-Sun
Fayetteville (N.C.) Observer
Greensboro (N.C.) News-Record
Cincinnati (Ohio) Enquirer
Columbus (Ohio) Dispatch
Dayton (Ohio) McCall Corporation
Hamilton (Ohio) Journal News
Levittown (Pa.) Times
Norristown (Pa.) Times Herald
Reading (Pa.) Eagle & Times
Columbia (S.C.) Record-State
Nashville (Tenn.) Baird-Ward
Fort Worth (Tex.) Star-Telegram
Houston (Tex.) Chronicle
Houston (Tex.) Post
Lubbock (Tex.) Avalanche-Journal
San Antonio (Tex.) Express-News
Salt Lake City (Utah) Tribune & Deseret News & Telegram
Spokane (Wash.) Chronicle & Spokesman Review
Wheeling (W.Va.) News-Register
Vancouver (B.C.) Sun & Province
Montreal (Que.) La Presse
Montreal (Que.) Le Petit Journal
Montreal (Que.) Star

For More Information Circle 72 on Reader Service Card

A Message from HURLETRON to all CLINE-WESTINGHOUSE PRESS DRIVE USERS...

The Electric Eye Equipment Company has acquired all engineering data on the widely-used and accepted Cline-Westinghouse Press Drive, **including the equipment in your plant.**

Our already-established close relations with Westinghouse will enable us to give you prompt service on your orders for maintenance and replacement parts.

If you are thinking of expansion or modification of your drive equipment, it can be done properly and at lowest cost **only** by the people who have the specifications and "know-how" for it.

Write—or phone—for quick, intelligent counsel on any press drive problem.

Electric Eye Equipment Company

1938 E. FAIRCHILD ST. DANVILLE, ILLINOIS PHONE DANVILLE 6-6500

HURLETRON UNITIZED DC PRESS DRIVES *The Drive that's 10 years ahead*

HURLETRON - FLEXITROL UNIT AC PRESS DRIVES

HURLETRON TWO - MOTOR AC PRESS DRIVES

For More Information Circle 56 on Reader Service Card

ANOTHER AUTOMATION PRODUCT FROM... RCA

NO JOB IS TOO TOUGH FOR THIS NEWSPAPER CONVEYOR!

Now installed at a large Midwest newspaper, this new RCA Conveyor System is doing "a wonderful job in a very tight mailroom." They are more than satisfied with results.

Performance and capabilities of the RCA Newspaper Conveyor are indicated by these comments of operating and maintenance personnel . . .

"With the RCA Conveyor you can bend it around a building column in a very short space. In a room like ours we can see a lot of advantages in this system. It can perform more twists and turns than a piece of spaghetti!

"It was cheaper to install, maintenance should be lower, and there should be more trouble-free operation than on other systems.

"It's so easy to maintain you can just stand there on the floor with an oilcan and in one revolution of the chain you can have it oiled.

"This system is so simple, it just has to work!

"It takes about a quarter of the time to install the RCA System as the older one.

"Print is not smudged by the RCA System.

"Kickers give us no trouble.

"The RCA System should gain wide acceptance in the newspaper industry."

**Designed and manufactured by Fehr & Reiit AG, Switzerland*

RCA Newspaper Conveyors are readily installed in existing as well as new facilities since no changes are required in the presses or accompanying equipment. The Conveyor System functions ideally with RCA's new transistorized Newspaper Counting System. Get all the facts on this better conveyor now available from RCA. Send for descriptive folder on RCA Newspaper Conveyor Systems and other Automation products. Or ask for RCA representative to call. Address RCA, Dept. T-343, 12605 Arnold Avenue, Detroit 39, Michigan.

RCA Tmk(s) ®

RADIO CORPORATION of AMERICA

INDUSTRIAL AND AUTOMATION DIVISION

DETROIT, MICH.

For More Information Circle 149 on Reader Service Card

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

MOHR LINO-SAW BOOKLET

Cutting Composition Costs is the title of a booklet issued by Mohr Lino-Saw Company to describe its slug cutting saws which can be attached directly to linecasting machines. Circle No. 326 on Reader Service Card.

PROTYPE FOLDER

A folder concerning Protype lettering has been released by Mergenthaler Linotype Co. Used for ads, layouts, magazines, posters and bulletins, Protype is offered in 10,000 type styles and sizes. Circle No. 316 on Reader Service Card.

MATRIX CONTRAST SERVICE

A booklet explaining the Matrix contrast service is available on request from Matrix Contrast Corp. The service is said to eliminate wrong font mistakes, transpositions, and cut down linecasting errors. Circle No. 314 on Reader Service Card.

STAR V-BELT MOTOR DRIVE

Star Parts, Inc. is offering a bulletin in which is discussed its V-belt motor drive for Linotype and Intertype machines. Included in the features are a variable speed pulley that can be locked at any speed and an adjustable motor support said to provide vibration free operation. Circle No. 313 on Reader Service Card.

MACHINE PARTS AND SUPPLIES

Montgomery Company, Inc. offers a six page newspaper size bulletin in which are illustrated and described linecomposing machine parts and supplies. Included are specimen showings of matrix fonts. Circle No. 327 on Reader Service Card.

TWO COLOR PROOF PRESS

Printing Plate Supply Co. has issued an illustrated bulletin on its precision two color proof press said to enable accurate pre-press makeready. Descriptions of the one color model press are also included. Circle No. 307 on Reader Service Card.

INTERTYPE DISPLAY FOTOSETTER

The Super display Fotosetter, which will set all sizes of type from 3 pt. through 72 pt. direct from the key board on paper or film, is discussed in a folder available from Intertype Company, Div. Harris-Intertype Corp. Circle No. 309 on Reader Service Card.

STEEL AND ALUMINUM CHASES

American Steel Chase Co. has prepared a catalog regarding its line of steel and aluminum chases for newspapers, commercial printers, stereotypers and electrotypers. Circle No. 320 on Reader Service Card.

Platemaking

VARIGRAPH LETTERING DEVICE

The Varigraph Company shows six new lettering styles in its 40 page catalog as well as over 70 type faces of Varigraph templets for lettering artists and for lettering directly on paper offset plates. Well illustrated. Several new accessories are illustrated and described. Circle No. 338 on Reader Service Card.

LAKE ERIE MOLDING EQUIPMENT

Lake Erie Machinery Corp. is offering Bulletin 349 regarding its Directomat stereotype mat molding machines and Bulletin 24.1 on its Acraplate rubber and plastic plate molding machines. Circle No. 322 on Reader Service Card.

BRIGHTYPE CONVERSION PROCESS

The Brightype method of converting letterpress printing material into photographic images for use in offset lithography, rotogravure and other printing processes is the subject of a folder prepared by Ludlow Typograph Co. Circle No. 323 on Reader Service Card.

AIR-GRIP VACUUM CHUCK

Literature regarding the new Air-Grip vacuum chuck, said to hold plates flat, level and rigid on routers, proof presses or shavers, is available from Monomelt Company, Inc. The Air-Grip chuck is a hollow cored magnesium plate. Circle No. 324 on Reader Service Card.

PHOTOCOMPOSED REPRODUCTIONS

A handsome four page illustrated bulletin is offered by Dot Engravers, Inc. In this bulletin are presented a number of examples of the company's ability to combine two or more pieces of artwork. This photocomposing method makes possible combining subjects from different pieces of art so as to appear in final result as one piece of art. Circle No. 335 on Reader Service Card.

CONVERSION PROCESS SAMPLES

Samples of the Brightype photographic process for direct conversion of any letterpress form to film or photo paper are offered by Brightype Service. Brightype products include right reading positives or negatives, wrong reading positives or negatives, and right or wrong reading paper prints. Circle No. 317 on Reader Service Card.

nuARC LARGE SIZE LIGHT TABLE

Bulletin 277 P. P. has been published by nuArc Company, Inc. to describe its 40 in. by 60 in. light table for opaquing, stripping, layout and finishing jobs. Circle No. 308 on Reader Service Card.

GRAY CONTACT SCREEN

A folder and price list on the Universal gray contact screen has been prepared by Caprock Developments. Screen is reported to shoot fast and provide good contrast and tone values. It is available in sizes 8 in. by 10 in. to 23 in. by 29 in. Circle No. 321 on Reader Service Card.

GEAR AND CYLINDER CHART

Mosstype Corporation has issued a new edition of its Gear and Cylinder Chart. Given are number of teeth in plate cylinder gear, printing circumference or repeat, and printing or pitch diameter. Tables for diametral and circular pitch gears are given. Other helpful information is included. Circle No. 342 on Reader Service Card.

Pressroom

WEB OFFSET PRESS BULLETIN

Descriptive of the George Hantscho Co.'s 22¾ in. by 36 in. perfecting web offset press is a six page illustrated bulletin. The press may be obtained with one unit and folder up to four units with folder. Signature capacities of each are given. General specifications are included. Circle No. 336 on Reader Service Card.

CROSFIELD AUTOMATIC CONTROLS

An attractive illustrated booklet has been released by Crosfield Electronics, Inc. to describe its automatic controls. Included in Crosfield equipment are automatic controls for color register on rotary presses; automatic register controls for pre-printed webs, and electronic correction of color separations. Circle No. 325 on Reader Service Card.

TWO COLOR OFFSET PRESS

Folder M-38 has been prepared by Miehle Company, Div. Miehle-Goss-Dexter, Inc. to explain the features of the Miehle 38 two color offset press. It is equipped with a simplified feeder with a mechanical pile hoist and is said to require only one adjustment for changes in sheet size. Circle No. 312 on Reader Service Card.

PAPER CONDITIONING CHART

A Paper Temperature Conditioning Chart (9¼ in. by 12½ in.) punched for hanging on a wall has been prepared by West Virginia Pulp and Paper Co. Chart tells how many hours are required to condition paper in pressroom when cubic feet of paper and its temperature on receipt as well as pressroom temperature are known. Circle No. 332 on Reader Service Card.

ATF OFFSET PRESS BULLETIN

American Type Founders has issued the first of a series of *Product Bulletins* designed to furnish information about technical developments. This first issue is illustrated throughout the six pages. Described is the new line of high speed two color Chief offset presses. Circle No. 329 on Reader Service Card.

DAYCO LITHO ROLLERS

Dayton Rubber Co. has published a bulletin to describe its Dayco litho rollers reported to enable longer mileage and a good job of laying ink. It is said the rollers hold a 0.003 tolerance. Circle No. 311 on Reader Service Card.

ROTARY NUMBERING MACHINES

Wetter rotary numbering machines, available in parallel and right angle models, are the subject of a folder released by Wetter Numbering Machine Co. It is claimed the machines will operate at speeds of 30,000 i.p.h. Circle No. 306 on Reader Service Card.

Bindery, Mailroom

BINDING COST COMPARISONS

I've Got a Sporting Proposition For You is the title of a booklet published by Macey Company, Sub. of Harris-Intertype. Your stitching costs for binding a specific type of publication may be compared with the Stitch-A-Fold system of saddle stitching. Circle No. 340 on Reader Service Card.

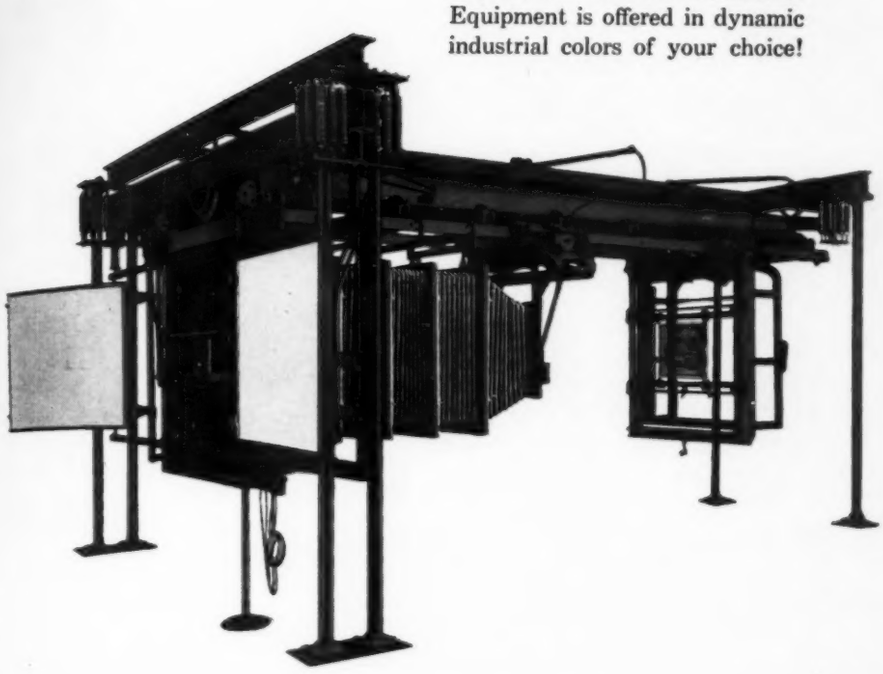
SYNTRON PAPER JOGGERS

Included in a new condensed catalog No. 591 published by Syntron Company are descriptions of paper joggers. Catalog consists of 68 pages. Data, specifications, and descriptions of all Syntron products are illustrated and described. Circle No. 331 on Reader Service Card.

(*Continued on Page* 83)

4766

NOW: Lanston Photomechanical Equipment is offered in dynamic industrial colors of your choice!



before you buy ANY camera...

INVESTIGATE TODAY'S LANSTON OVERHEAD PRECISION CAMERA!

The Lanston Motor-Focusing Color camera is a precision instrument designed, constructed, and equipped to meet the most exacting performance requirements of today's Graphic Arts. This versatile, sensitive camera meets every condition where accurate alignment and perfect register is paramount. Regardless of the process . . . continuous tone, line, halftone, combination or process for multi-color requirements . . . the Lanston Overhead Precision Camera hasn't been equaled for fine quality and speed.

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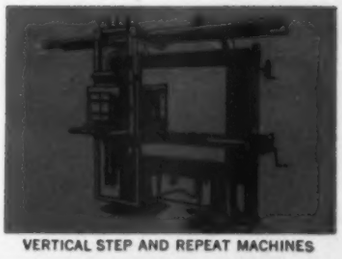

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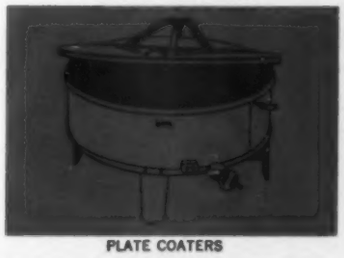
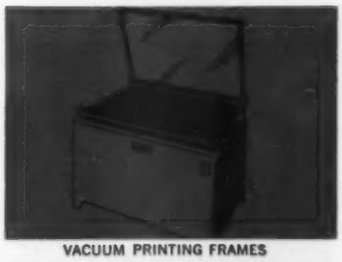


PLATE COATERS

DARKROOM SINKS



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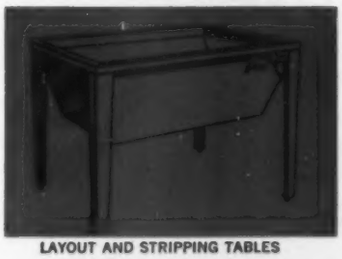

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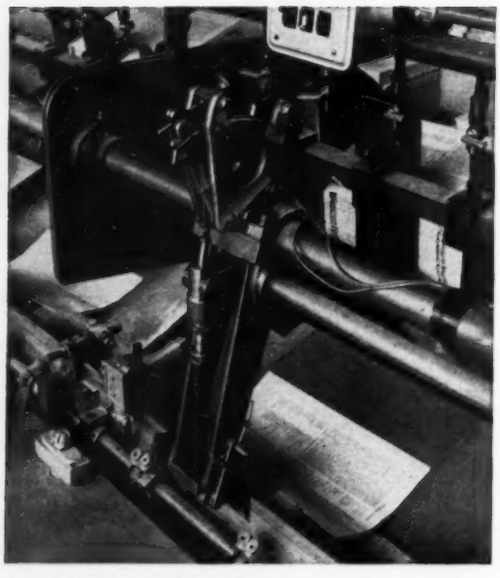

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PRINTING PRODUCTION

MAY 1959

Philadelphia Flatbed Printing Plant Follows Simplified System of

MAGAZINE PRODUCTION

By JOSEPH W. DRAGONETTI, *Philadelphia Correspondent*

THE Chilton Company, Philadelphia, second largest publishers of trade and industrial publications in the country and operator of what is claimed to be the biggest flatbed printing plant in the East uses a sound printing production control system designed to meet deadlines and cut costs.

Such a system is imperative because of the complex nature of the Chilton activities. The company prints 16 of its own 17 publications, a number of outside magazines and also does job work.

In 1958 the company produced 354 regular issues of its publications, 52,516 pages, 15,491 color pages, and 11,569,757 copies of its publications. This operation consumed 4200 T. of paper. This does not include outside work which amounts to 25% of the Printing Division's operation.

The Printing Division employs 342 people, including 138 in composing, 106 in the pressroom, 57 in the bindery and 41 miscellaneous.

Printers—Not Bookkeepers

Responsibility for printing production control rests primarily with the Printing Division, under the direction of Edwin C. Sandgren. He and his associates have developed a number of forms which help the system work, but they are not "form happy." One of Sandgren's assistants, George E. Cameron, general superintendent, puts it this way:

"We are printers—not bookkeepers." Forms are useful, but close cooperation by all departments of the company is even more important to assure smooth flow of work in process.

Start of Production Control

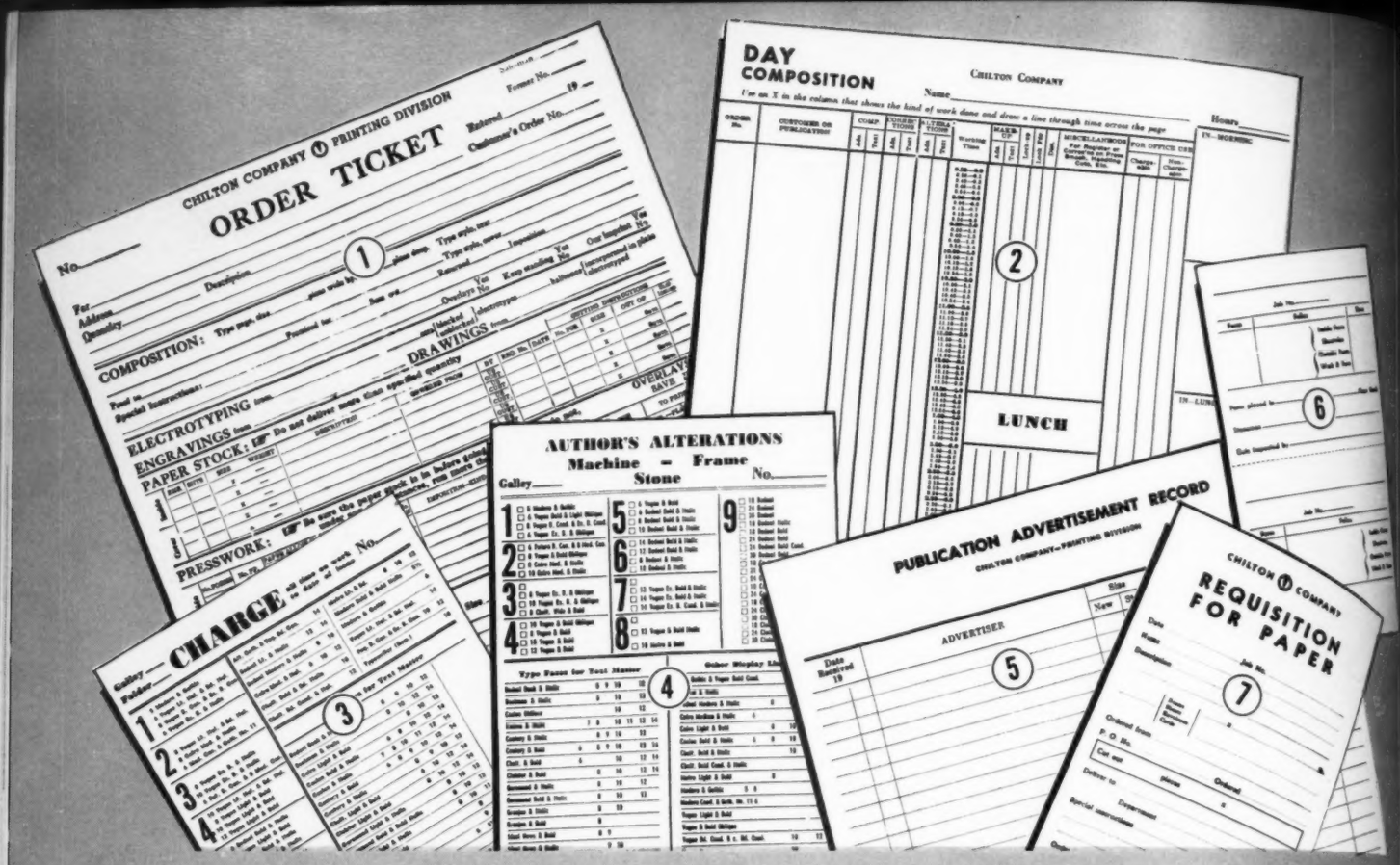
In this article will be explained some of the pre-printed forms and tickets used in Chilton printing production, but first we'll explore the company policies behind the established system.

Sandgren believes production control starts at the beginning: The sources of editorial and advertising copy which are the publication offices. Most Chilton books operate under one roof, but each operates as a separate unit. Three of the Chilton publications have editorial and advertising offices on the West Coast. Despite the distance between copy source and plant in Philadelphia, tight schedules are maintained. There is no general editorial or advertising department. Each publication has its own publisher, advertising manager, editor, production manager, etc.

Each has to stand on its own feet as an economic unit. Each publication, therefore, must be printed economically and control of production and costs are vital to this success. Economically, the Chilton Printing Division must compete with other printing plants. It considers its own publishers as customers just as it does those from the outside. In effect, it must operate at a profit.

Because Sandgren believes printing production control begins at the source he says it is of paramount importance to show publishers, editors and production men of the individual Chilton publications how they can get a quality product and

Director of Chilton's Printing Division, Philadelphia, is Edwin Sandgren (left) shown confering with George Cameron, plant superintendent, and his assistant, Spencer Collman.



Selection of preprinted forms used for handling production in the letterpress magazine printing plant of the Chilton Company, Philadelphia. (1) The company's order ticket contains instructions necessary to every manufacturing phase of the job. (2) Time ticket used in composing room operations. (3) Markup ticket attached to all copy to designate quickly the type face and size for setting. (4) Author's alterations are noted on this form on pink stock. (5) Publication advertisement record contains a listing of all copy entering the composing room. (6) Locked up forms are tagged with this ticket for identification. (7) Paper for a given job is requisitioned within company on this form.

still hold costs down. A number of successful techniques have been developed to attain these objectives, including operation of production seminars by the Printing Division.

In a recent meeting with a group of editorial people, Sandgren said: "We have analyzed all the cost sheets for several issues of our publications.

"The first analysis indicated that in a few of the books the editorial costs were high. I spoke to those people about this in a constructive way. The Printing Division's ideas, as well as some suggestions by the publications themselves, were adopted and in the next issues of these few magazines analysis proved the costs dropped 25%."

Cameron and his assistant, Spencer Collman, also have set up regular courses of study for editorial and advertising people who attend the production seminars.

Chilton has found that interdepartment communication is important to printing production control. The Printing Division also holds regular monthly meetings of its own to explore ideas for even better control. It is attended by the superintendents of the division and G. Carroll Buzby, president of the company, sits in on the meetings.

Basic Reasons for Control

The two top Chilton printing executives view printing production control essential for a number of basic reasons:

(1) You have to have an even flow of work to make the most efficient use of men and machines, but they do not look at it strictly from a cold economic standpoint. Morale is better, they say, when such an ideal is attained.

(2) You cannot set up a cost system and maintain it without production control.

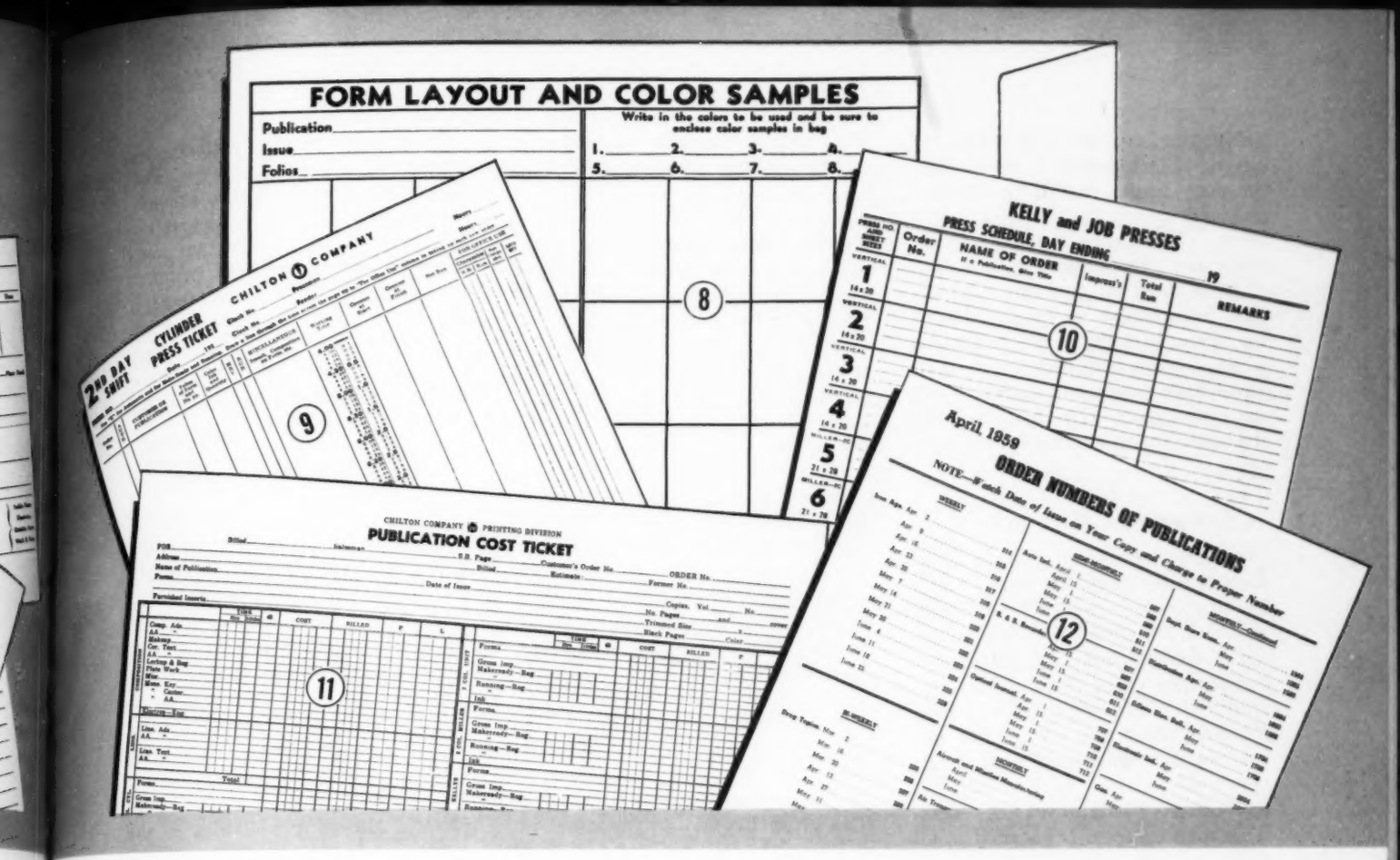
(3) It helps you maintain good customer relations. How important is this? Billings of Chilton's Printing Division to its own as well as outside customers approximates $5 million annually, and as Sandgren pointed out, it must be competitive with other plants.

Through his control system, Sandgren can tell what's on the press at what time. He also can check periodically performances of all presses, based on an average table which has been established. Time tickets, etc., help to keep this information up-to-date and if a press falls down on performance it is important to know why.

Publication Cost Ticket

Once a month Sandgren gets from the accounting department a Publication Cost Ticket for each publication (see 11 in form chart). In addition to many other things, it shows him if the production control system is working. If costs go up, he can investigate from other information at his disposal and trace the trouble.

Order numbers on all forms involved in the production control help to trace various phases of the operation. Numbers designate the publication and date of issue (see 12 in form chart). These numbers are carried through from the time copy is sent to the composing until monthly publication cost tickets are out.



More Chilton production forms are shown in this grouping. (8) The form layout for a commercial job or any issue of a publication is shown on the face of this 15 in. by 12 in. envelope. It is also used for sending color samples of the job into the plant. (9) Time ticket used in the cylinder pressroom for recording the operations and time spent on a job. Different colored tickets are used to designate the proper working shift. (10) Daily schedule for each press in the plant is shown on this form. (11) Publication costs are computed on this form from information entered on daily time tickets. (12) Order numbers of publications for a given month are listed on this form.

On the Publication Cost Ticket are listed all the production operations involved in a given issue. Time spent on various phases of production are recorded in hours and 6 min. units. Paper used, ink, makeready and other details are filled in. This form is the most extensive of the aids used in Chilton Company's production control.

There is no guesswork. The cost of each issue is known exactly and it is a valuable guide to the Printing Division.

Keep Tab on Paper Used

For example, the exact amount of paper used is recorded. In fact, paper for each issue, or for a specific job has to be requisitioned before production starts (see 7 in form chart). If any waste occurs above normal percentage, which has been charted through experience, and another requisition is necessary, it must be stated that it is an additional one for the same job. This leads to a check on why waste was above normal. There are no secrets, because stating the facts will lead to necessary corrections on press trouble.

Sandgren says that handling of paper is a vital link in the production control system.

"The paper department," he said, "accounts for every sheet. We can tell at a glance by looking at our records how much paper we have in the house at any given time. We bill paper at cost and do not charge for handling. Naturally, we try to keep our handling charges down to the minimum. Requisitioning of paper by issue or for each individual job helps us control this situation. An order ticket in folder form provides adequate space for detailed explanations of paper requirements."

Exact Font Tabulation

Sandgren points out it is also important to know the number of matrix fonts in the linecasting section of the composing room. Henry J. Gaab, composing room superintendent, and his copy cutter, Tom Gallen, told PRINTING PRODUCTION the office requires it be kept up-to-date at all times as to the exact number available for composition. The listing is divided into two categories: (1) Number of matrix fonts in magazines, and (2) Fonts which are considered extra and not in magazines but are on trays and can be put into magazines when necessity demands.

This is important in printing production control for three reasons:

(1) Some fonts fall out of popular demand and are retired, but are still available on trays.

(2) Additional faces and sizes of type, at intervals, are added to the composing room by reason of the purchase of new publications or new outside work.

(3) It is obvious that the office must have this up-to-date information regarding facilities for type composition to estimate and schedule production.

When copy comes to the composing room it is entered in a Publication Advertisement Record (see 5 in form chart). This same form is used for both editorial and ads.

In the left hand column of this form the takes of copy for a given

publication are recorded when received. Black pencil is used when the copy comes in during daytime and red pencil is used for night work. The order number which designates the publication and date of issue must go on form. Important information at the bottom of the form includes total pages for a given issue including cover, new advertising pages and standing advertising pages. On editorial text the same spaces are used with variation.

Compositor's Markup Form

A comprehensive copy markup form is used (see 3 in form chart). In this form are listed the fonts available on nine permanently setup linecasting machines for display composition use, and for the 21 machines on which the magazines may be changed at any time. The key man in the composing room circles the type required to facilitate the copycutter's assignment of work. This markup form is fastened to all copy coming from editorial or advertising.

"It is important," he said, "that the copy cutter know at a glance what machines are to be used from the notations made by the key man. What the key man does is transfer the markups made on the individual sheets by editorial or advertising to the markup slip."

Accounting of each department of the Printing Division is compiled from Daily Time Sheets (see 2 in form chart). There is also a special time sheet for overtime. A vital detail here, too, is that the order number of the publication be entered on all time sheets. These order numbers are obtained from a master sheet giving the order numbers for all publications for each month.

The Form Tag

When each form is locked up a Form Tag is made out in duplicate (see 6 in form chart). It is perforated across the center. The information on each is identical. One section stays with the form and the other section is given to Thomas S. Leonard, superintendent of the pressroom.

Notations on the Form Tag start with the all-important job number which makes it possible for the billing department to compile the costs for a given issue.

An imposing table proof is pulled before each form goes into the pressroom. When corrections have been made they are initialed by the man making them, another indication of how every detail of operation is pinpointed so far as responsibility is concerned.

The information on the Form Tag given Leonard is registered on a Press Scheduling Card (see 9 in form chart). This card, which remains on Leonard's desk for constant checking, records the press number and sheet sizes, the order number, name of order, or of publication, the impressions and the total run. A space in the righthand column provides for remarks.

Scheduling Forms for Presses

It is Leonard's job to schedule the forms for presses. Size of stock and ink and color samples also have to be checked and ordered.

The press scheduling card is also used to control information on the progress of production over one, two or three shifts.

Press production is further controlled by charts compiled from daily time tickets and once a month an average for the presses is established. These figures are compared by Sandgren with performances in the past, and if there is any drastic drop an investigation is made. There may be something wrong with the press or other trouble may have developed in the scheduling system.

Chilton Proud of Bindery

Smooth running of the printing production system is reflected in the bindery. When the system is working up to par, the bindery benefits. If not, the bindery is likely to have terrific rush periods and lulls.

Of course, deadlines cannot wait and postal regulations have to be met. Lawrence Ogden, superintendent of the bindery, maintains intimate contact with the postoffice.

Chilton has one of the most completely automatic binderies in the country. As the sheets are printed, they go in an even flow into the folding room. Sheets are being folded while the press is still running. Ogden works from Cameron's production schedule and the other forms available in the pressroom.

Cameron is responsible for making out production schedules for each publication. Last copy times and dates are given for different forms, last makeup, last page OK and last stone. Time indicated is when material is to be in the plant.

The bindery can work about five to six jobs at one time and can process better than 100,000 magazines a day.

Chilton production executives shown in their natural surroundings include (from left) Henry Gaab, composing room foreman, who discusses a job with Copy Cutter Tom Gallen; Thomas Leonard, pressroom foreman, and Lawrence Ogden, bindery foreman.

Web Press Prospects for

OFFSET

. . . will it be advantageous to print majority of work from small plates on multicolor units?

By ADAM HENRI REISER, *Eastern Editor*

DOES the future of multicolor offset printing lie in the use of webfed presses? Can the vast majority of multicolor lithography be produced more advantageously on one or a few small units, from a small size press plate, printed by web offset at great speed? Or does a large sized press plate with many small units on it, run on a large sheetfed offset remain a better deal?

In a plant where both sheetfed and webfed offset equipment is operated, it was found, for example, that a four-color job could be off and running on a four-color webfed offset, while large press plates for a sheetfed press were still in the prep stage. And, the speed of 25,000 sheets per hr. on the webfed press, provides quite a lead and a cushion on which to work.

Marvin Radlauer, president, Web Color Process Corp., 175 Varick St., New York, where the writer saw a four-color ATF Green Hornet press in operation, feels that a battery of web offsets represents the printing establishment of the future.

Originally, operation of the press was included with single and two color sheetfed offsets ranging to the 76 in. press size. After months of operation, it was found that a different approach was necessary in purchasing, estimating and production problems than that encountered for sheetfed equipment. For that reason it is the opinion of Radlauer that to be successful webfed offset operation should be kept separate from sheetfed thinking.

It is noted that webfed offset presses have been operated in lithography for some time. Our readers might recall the July 1957 issue of *Printing Equipment Engineer* in which was carried the story of the new Harris-Cottrell eight-color web offset press being shown to a group of printing industry members in the plant of the Western Printing & Litho Co., Poughkeepsie, N. Y.

The interesting thing about the installation at Web Color is its implication in the job printing field. This seems to be a serious effort to really bring multicolor offset to the job press field.

However, this does not imply pioneering is necessary, either in management or production. In the Green Hornet press, standard rubber blankets and rubber inkers are used. Paper covers for the dampeners are satisfactory. Standard dampening solutions are also used. A more heavily pigmented ink, quicker setting to work better in this press, has been developed in cooperation with several well known ink companies. You see, the press is being operated without ink drying equipment or sprays.

Two inkers or form rollers supply the ink directly to the press plate on each of the four printing units of the press. To insure proper ink distribution, each of the two form rollers has an additional copper, plated steel rider contacting it outside the inking system.

In the press are provided working margins for four 8½ in. by 11 in. pages in one sheeting, with four colors on one side or two colors on each side, or three on one side and one color on the other.

This press takes a roll of paper, 40 in. diam. with a maximum width of 17½ in. A maximum work area of 11⅛ in. around the cylinder by 17½ in. along the cylinder is contained in the 11½ in. by 17½ in. cutoff.

Zinc press plates are used with the image created by the deep-etch process, where runs exceed 50,000 impressions. These plates are preregistered to insure proper positioning around the cylinder. This is important, for once the plate is clamped to the cylinder, no twist is possible should one be necessary to accurately register the work. Only a lateral (left or right) or back and forward movement is possible to adjust the image.

In addition to the above correction devices, a side shift adjustment of the paper roll is possible through

(*Continued on Page* 86)

Four color webfed offset printing press in plant of Web Color Process Corp., New York, N. Y. Senior Pressman Tom Talbot adjusts ink fountain on Unit No. 1; President Marvin Radlauer inspects sheet, while Junior Pressman Muraca checks at the delivery end of the press.

Correct sharpening of paper knives can decrease paper cutting costs; lengthen knife life between grinds up to 400%.

Proper Sharpening of

PAPER KNIVES

Why it is important to your plant

By R. M. PLUMER, *Superintendent, Machine Knife Div., Simonds Worden White Co.,*

THE TOOL is only as good as the care it receives. This may sound like a cliche but nevertheless it is still quite true, especially in the area of high precision equipment. A tool that is properly used and properly cared for can be depended upon to do a superior job and give longer life.

Paper knives make up one such type of high precision tool. If they are properly used and properly cared for, particularly when it comes to resharpening, they will give extended service and result in a considerable savings in money.

During the life of one of these knives, resharpening is required many times, until finally the knife is ground down to the point where it is no longer useful. It is in these regrinds that the story of the knife is told. Correct resharpening can increase the number of cuts between regrinds as well as increase the total number of regrinds that can be made before the knife is worn out.

To provide a knife with a cutting edge that is sharp and true, and free from nicks and burrs, extreme care must be taken. Many knife users have their regrinding done by factory services, but for those who are equipped to do their own regrinding, Simonds Worden White Co. would like to impart some of its knife grinding know-how.

To correctly sharpen paper knives the right grinding machine, in good repair, and the correct grinding wheel, are necessary. Information concerning the size and type machine for your grinding operations can be obtained from the machine manufacturer. Basic requirements for the machine are that it have a variable speed automatic feed, a head or table with a travel distance greater than the longest knife to be ground, and a means of duplicating and controlling the grinding angle as in Fig. 1. Either a magnetic or clamp chuck may be used.

In regard to grinding wheels, we use Dayton Safety Wheels produced in our plant where we are able to maintain rigid standards of quality control. In most cases either an A601-114-V25 vitrified wheel or an A601-J14-B Resinoid wheel is used for bevel grinding.

We recommend segmented type wheels for the highest quality grind as these permit a greater flow of coolant and consequently less heat. Specifications for the particular wheel to grind the paper knives that you use may be obtained from the knife manufacturer or your grinding wheel supplier. Actual sharpening requires two carefully executed steps—grinding and honing. Both are of equal importance and both require exacting procedures.

The Grinding Operation

The knife should be carefully aligned and securely attached to the chuck. Care should be taken to wipe the chuck clean so that the knife seats flat. When positioning the bevel edge of the knife the grinding wheel should be aligned to create a 0.002 in. concave bevel as at *A*, Fig. 2.

For standard paper knife applications Simonds Worden White engineers suggest a 24½ deg. bevel angle. For varied applications and for jobs requiring the cutting and trimming of special papers the bevel angles shown in Fig. 3 are recommended.

The direction of grind should be away from the cutting edge of the

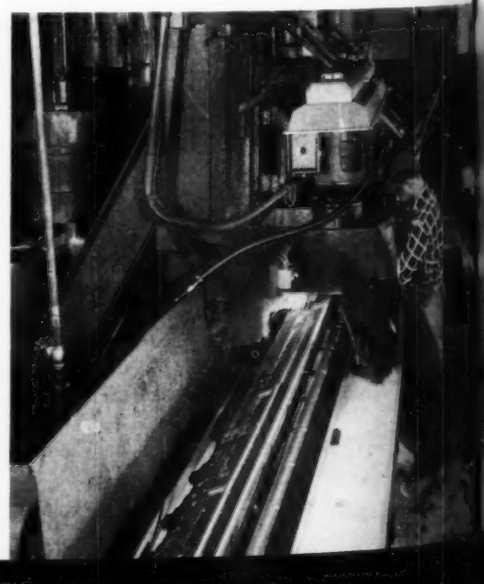


Fig. 1—For grinding dull paper knives, suitable equipment together with necessary skills must be used. Here is shown a knife being ground in a production sharpening operation. There are other operations to be done when sharpening a knife. These are clearly described in this article. Knife angles for standard applications and for special purposes are explained.

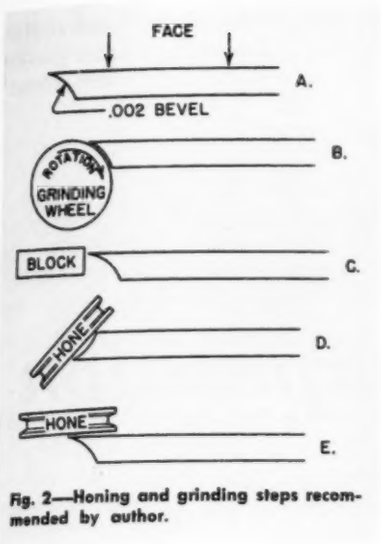


Fig. 2—Honing and grinding steps recommended by author.

knife and toward the heel of the bevel. (See *B*, Fig. 2.) This is to aid in dissipating heat. Excess heat may burn the steel and remove the temper, causing cracks in the tool steel. These will grow larger with each grinding until eventually the knife will fail through metal fatigue. For this reason it is essential that a coolant be used in grinding hardened steel. A maximum amount of continuously cleaned coolant should be directed at the contact point of wheel and knife.

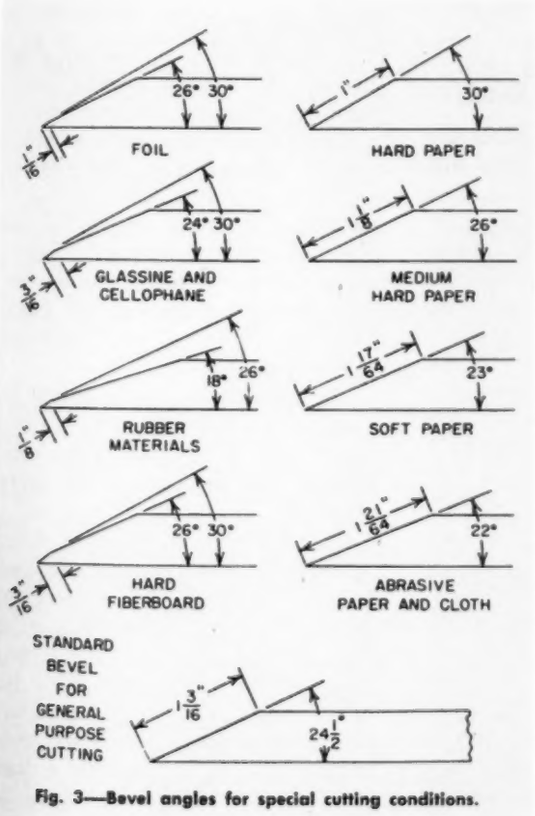


Fig. 3—Bevel angles for special cutting conditions.

The rate of metal removal is one of the most important points to consider. If the metal is removed at too fast a rate it may burn the knife, and, if more than the necessary amount is removed it will considerably decrease the number of regrinds that can be made before the knife is worn out. This is the area where careful control can save money. It doesn't take long to remove the metal that would represent several regrinds.

The recommended rate of metal removal at the start of the regrind is 0.0005 in. depth per pass. Usually six passes are all that are needed to remove the dull edge. (In the case of extra deep nicks more than six passes may be required.) One additional very light pass should then be made to minimize the grinding marks.

When all the nicks have been ground out and the dull edge removed a burr will run the full length of the cutting adge.

Removing the Burr

The next step is to remove the burr or wire edge. This is done with a hard wood block as illustrated at *C*, Fig. 2, the object is to break off the burr without changing the cutting edge. Care should be taken to see that the burr is actually broken and not just bent back on itself. For this operation the knife should be placed on a clean flat surface with the face upwards. Use the block to make one straight pass along the full length of the cutting edge.

After removing the burr, carefully turn the knife over so that the face is down and bevel is up. At *D*, Fig. 2 is illustrated the position in which the hone should be to hone the bevel side. Let the hone ride gently on the cutting edge and the heel of the bevel. Very little pressure should be applied. Make several passes with the hone using an overlapping circular motion followed by a few straight passes. Extreme care should be taken not to rock the hone or let it get out of position.

Never hone the face of the knife. Every precaution should be taken not to mark or scratch the face in any way. If a burr should develop while honing the bevel side, turn the knife over so that the face side is up. In this position, make one straight pass on the face side of the cutting edge with the hone held at a slight angle as illustrated at *E*, Fig. 2. Use no pressure on the hone, its own weight is sufficient.

Fig. 4—A skilled workman demonstrates position of the hone when honing bevel side of knife's cutting edge after removing burrs and wire edges with a hardwood block.

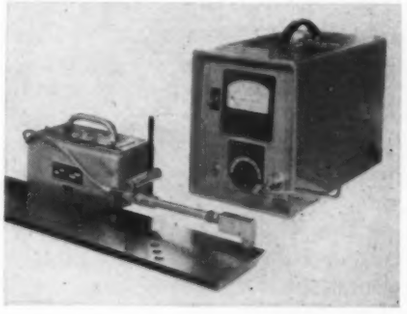


Fig. 5—A Profilometer is used as a quality control instrument on all production knives to verify practical elimination of grinding marks in the freshly cut paper.

Always hone the minimum amount necessary. The grinding machine has cut the knife edge, honing is merely to remove the burr and give the edge a last final polish. This step (Fig. 4) is just as important in the grinding operation and should be carefully executed.

At Simonds Worden White we use a paper knife hone of our own manufacture which has a 180 grain for rough finishing on one side and

(*Continued on Page 87*)

Retail display composition done on unit sub-assembly basis to avoid engraving peaks

By LISLE BAKER, Jr., *General Mgr.*
Louisville Courier-Journal *and* Times*

SOME NEW CONCEPTS IN

Newspaper Photocomposition

WHAT are the economics of our photocomposition system? In attempting to answer this question, I have, of course, only one criterion by which to judge and that is our own historic cost accounting records. Just how efficient our composing room has been in comparison with others, I have no means of knowing.

It is my considered judgment that our composing room has not been the most efficient of all those with which I have tried to draw comparisons, but that it has been in the top 20% to 30%.

As to our own cost accounting records: The data which I present are derived from analysis of the four-week period in November and December 1958 insofar as photocomposition is concerned, and a four-year average insofar as hot metal is concerned.

Markup is the only function upon which more time is required. Every other function, such as machine time, assembly (both film and metal) proofreading, office corrections, and store proof changes, show significant reductions; and the overall reduction in time is in excess of 25% in the ad room.

It should be borne in mind that the foregoing data are in terms of composing room man hours only, and do not take into account materials, engraving time and materials, and capital costs. When all these factors are taken into consideration in the engineering analysis to which I referred, the data indicate that 100% conversion of our retail display advertising composition to photocomposition would enable us to recover all net additional capital investment within one year.

The most conclusive answer to the question of economics lies in our decision to proceed with photocomposition, to expand it, and to add additional Photons. That decision, however, is not based upon intuition or simple judgment. It is based upon detailed cost accounting records and upon careful analysis both by our research engineers and the engineers of a nationally known concern (not Photon, Inc.) of this system of operation.

Retail Display 64% of Total

We publish morning, afternoon, and Sunday newspapers, with five or six editions on each paper. Our editing and revision between editions is very extensive. Our classified is solid agate with no display lines, white space, or multiple columns. Classified, consequently, is grouped with news and is not counted as advertising composition. Our retail display advertising linage historically has been approx. 64% of the total volume.

It is only with this 64% that I am here concerned, and it has been historically about 50% of our composing room man hour costs.

We have more than 1200 active retail accounts. Our six department stores account for only 21%-22% of our retail display linage. Our three largest advertisers run most of their copy on a single paper basis, while the bulk of the remainder is carried in daily combination.

The Johns Hopkins comparisons show that our density and complexity factors are very high.

Advertising Copy Schedule

We have a deadline schedule which varies somewhat as to days of the week, but may be generally described as 38 hrs. to first advertisers' proof and 24 hrs. between such proofs. We limit successive advertiser proofs to two. We give ½c per line discount to our top 35 advertisers for meeting our copy standards, but we charge those advertisers for all revisions on both first and second proofs.

We have long had a large engraving department, which makes not only all news cuts and all advertising engravings, but also a substantial volume of outside commercial work. We have always charged advertisers for their engravings and continue to do so, except for photocomposed type which would otherwise have been done in hot metal. This has preserved and protected substantial revenue.

Our production departments are completely unionized, so the system which I shall describe is operating within the framework of union contracts.

Our objectives in entering photocomposition were to preserve our existing deadlines and relationships with advertisers; to avoid internal jurisdictional disputes; to achieve compatibility with our existing hot metal system so as to permit gradual introduction, integration, and growth; and to accomplish a more economic system of ad composition after allowing for the engraving

*Address delivered before SNPA Mechanical Conference, Fort Worth, Tex., March 1959.

factor. We did not believe that the conventional paper pasteup system would realize these objectives.

Deficiencies of Paper Pasteup

Paper pasteup photocomposition appears to us to have certain inherent deficiencies:

(a) It starts on the same premise as hot metal composition, that is, line by line typesetting. The product of this line by line procedure is then assembled by pasting the various elements into position, as called for by the layout. While it is obvious that paper pasteup assembly should be accomplished more rapidly and more efficiently than equivalent hot metal due to the avoidance of all metal carpentry, it does not seem to us that this single advantage is sufficient to offset the costs and delays involved in engraving.

(b) Conventional paper pasteup has no place for stereotype flat casts except as a means for securing a reproduction proof. Since this reproduction proof must subsequently be engraved, the net result is a duplicate metal image of something which is already existent in metal, but with some loss in quality. To the extent, of course, that the advertiser will furnish reproduction proofs instead of mats, this can be avoided. However, at least in our own case, we would find it difficult to obtain these reproduction proofs in a great many cases. This matter of mats is an important factor because analysis of our advertising copy indicates that approx. 35% of the total area of retail display advertising consists of matted material.

(c) Original art, unless it be simple line work of correct size, must be put through various photographic steps before it can be incorporated into a pasteup. Particularly is this true of department store art involving overlays, tinting, bendaying or masking, which must go through preliminary steps before a screened positive can be made. Since a screened positive is necessary for this type of art if it is included in a pasteup, this fact makes for delays, loss in quality, and jurisdictional problems.

(d) If the newspaper decides to require the advertiser to supply art work already screened and semi-processed so as to be includable in a paper pasteup, it will be difficult to justify charging for the engraving of that portion of the ad.

(e) While single proofs of paper pasteups are easily had, multiple proofs are time consuming and relatively expensive. Furthermore, they lack quality in halftone, masked or otherwise screened art, and fail to give the advertiser the type proof by which he can judge these elements.

(f) Since it is obviously uneconomic to engrave a complete advertisement prior to advertiser alterations, it is apparent that the use of paper pasteup will cause great peaks in the engraving department just before publication deadline, unless more stringent requirements are placed on the advertiser.

Louisville System Explained

It is out of considerations such as these and out of the capability of Photon to produce type up to and including 60 and 72 pt. in sub-assembled units that our system was devised.

The general procedure for photocomposed ads has been fairly well standardized. It varies somewhat, of course, for different kinds of ads, but the standard procedure is as follows:

(a) The dispatch room receives copy from the advertiser, usually in late afternoon just prior to copy deadline. The dispatch personnel check the ad for completeness and for any mats or cuts which we may hold on file for that particular advertiser. If the copy is accompanied by original art, such art is sent to the engraving department with an appropriate order. Mats are sent to the stereotype department in a plastic envelope so as to keep all mats for a particular ad together. The layout and copy sheets are given a number and sent to the composing room.

(b) In the composing room, the head ad man sends the copy and layout to markup. The markup is conventional except for the addition of any required leading information. If all the required type faces and sizes are not presently available on the Photons, the exceptions are noted for either Ludlow or Linotype setting. Markup also specifies bases, borders, and boxes. The layout and copy are sent to the Photon operators.

(c) The Photon operator sets all the copy for the ad, using his judgment as to the amount of sub-assembly to be done at the keyboard. Most copy falls into natural composition units and these units are ordinarily composed as well as set at the keyboard; but no attempt is made to place these units in any spatial relationship to each other.

(d) After sufficient copy has been keyboarded, usually from several ads, to use about 5 to 8 ft. of film, the film is removed from the machine, developed, and dried with al-

View in section of Louisville *Courier-Journal* and *Times* composing room. Four phototypesetting machines are used in local display ad work for phototypesetting and partial photocomposing.

cohol. At this point, a proof is taken and proofreading is done.

(e) The film is then taken to the light table and some further assembly takes place by cutting and Scotch taping sections of film together. This is again a matter of judgment, and the extent of film assembly depends both upon the nature of the layout and the desirability of conserving zinc. In any event, all the film for a particular ad is Scotch taped together in one piece and passed to the engraving department.

(f) The engraving department groups the different ads together, usually so as to fill a flat, and makes a contact rather than camera negative. This negative goes through the usual engraving process and the engraved plate is routed as to profile and separated by ads so that one piece of zinc will contain all the type for a particular ad. This piece of zinc goes back to the composing room.

(g) In the composing room, the metal assembly man takes over; and in this phase, there are several alternatives.

Our original procedure was to have the assembly man cut the base to correct sizes from stock immediately available to him, place necessary type high borders around the base, place any flat casts (which have been shaved to zinc thickness in the stereotype department) and any engraved art in position on the base by double faced adhesive tape, cut each engraving of the type apart with a guillotine as necessary, and place each in position by the same process.

Improvements in System

However, we have developed some improvements. We have found a translucent material made by the Minnesota Mining & Mfg. Co. and available in sizes up to page width, with adhesive on one side. A piece of this material is cut to the same size as the base; it is placed over a transparent grid and both pieces are placed over the original layout face down and the whole placed over a light table. The assembler is now able to position all elements of the ad in exact conformity with the layout and upon a surface which is already adhesive, so that he does not need to use tape for

"Smith, you're out of shape . . ."

each metal piece. The whole assembly is then picked up and placed on the base. Since the adhesive material is such that it requires no neutralization, the ad is ready for the proof press and mat roller.

Another method is to use prescored, aluminum sheets of full page size as base.

Variants in Procedure

I have described the standardized procedure, but there are a number of variants.

On some ads, it is feasible and desirable to go through what we have termed a "pre-layout" procedure. In these instances, markup first specifies base, borders, boxes, etc. but marks up no type. The metal assembly is made and the flat casts and engraved art are placed in position according to layout. A proof is then pulled, and this constitutes an exact and accurate layout. Markup then marks up the type and from that point, it follows the usual procedure. This procedure tends to minimize fitting problems and to produce an accurate layout, and also has the advantage of getting some initial assembly done early.

Some of our advertisers like galley proofs of type, whether the ad be set in hot metal or by photocomposition. In those instances, we would go through the pre-layout procedure just described, except that we would not make an engraving of the type. The advertiser is given a proof in two parts, one consisting of a regular proof of art, borders, boxes, etc., and the other consisting of a galley proof of the type made from the film. The advertiser marks any desired changes and pastes the type proofs in exact position on the layout proof. Necessary alterations are then made, the type engraved, and the ordinary procedure followed, using the returned proof as the master layout.

Inside Zinc High Boxes

Inside boxes have been a problem capable of several solutions which are workable but not entirely satisfactory. We have, we believe, hit upon a method which will largely solve this problem. A detailed examination of our ads over a period of weeks has disclosed that a very substantial percentage of inside boxes is constituted of a relatively small number of widths and depths, and that only three or four border patterns were used for them. After allowing for both square and rounded corners, it appears that 50 to 75 stock boxes would fulfill the bulk of our requirements. We are now trying to get these pre-cast in the sizes and patterns required. If so, an inside box would become a single piece 0.065 in. in height, to be placed in an assembly like any other component.*

In a few ads, we find that it is desirable to use paper in order to combine it with reproduction proofs furnished by the advertiser. In such instances, we simply make proofs of the film.

Summary of Principal Features

While there are other refinements and variations, I have described the basic system. Let me summarize its principal features:

(1) It is entirely compatible and interchangeable with hot metal procedures and requires minimum change of habits and skills.

(2) It imposes no change in requirements upon the advertiser

**Editor's Note*—Subsequent to Baker's address, Ludlow Typograph Co. has announced availability of continuous pattern box matrices for use on the Ludlow. The matrices are of proper image depth so that when slugs cast from them are passed through a Morrison Slug Stripper, enough of the cast is cut away to leave an open interior zinc high box which can be placed in position around the engraved photoset type matter without further fitting. (See p. 36, April, PRINTING PRODUCTION.) Also, display type slugs not available on the phototypesetting machine, as well as last-minute corrections, may be stripped to zinc height and positioned in the form.

such as earlier deadlines, later proofs, etc. Advertiser proofs are of no different appearance than conventional hot metal proofs. It also opens up certain possibilities, such as more extensive use of galley proofs which the advertiser can position accurately and positively upon his layout.

(3) In the composing room it offers distinct advantages:

In general, one operator will keyboard all the type for a particular ad at one setting while accomplishing at the same time a substantial amount of sub-assembly. This restores some of the pride of craftsmanship attached to the old handset days.

Keyboarding, even after including the sub-assembly function, is more rapid than the time involved in farming out copy to machines, setting it, and bringing it back together.

The availability of hard copy at the keyboard and the Photon correction procedures result in many fewer errors.

With the pre-layout procedure which I described earlier, markup becomes faster and more accurate.

The fact that all elements (except outside borders) are of one thickness, that is, 0.065 in., and that translucent adhesive-covered material is used, greatly expedites initial assembly and renders subsequent change of such assembly easy and quick. Last minute changes can be made, if desirable by putting in hot metal slugs stripped to zinc thickness.

Since all assembly is accomplished on a plane surface, only one height of base is required. This can be stocked in various widths and cut at the time required. Calculating and ordering several pieces of base for one ad are eliminated.

Ad storage is greatly simplified by storing assemblies on sheets of aluminum or other lightweight material.

If shell cast shaving is held accurate, all ad assemblies are of the same form height and uniformity.

Since all type for a given ad is delivered in one piece, the confusion and time spent in looking for misplaced type is eliminated.

Breakup becomes a matter of lifting sheets of adhesive material off the base and pulling out base for reuse.

ANPA's Chicago Conference Will Probe Into Production

THE nation's daily newspapers will meet next month to discuss mutual production problems at the Hotel Morrison, Chicago, June 21-24. It will be the 31st Mechanical Conference of the American Newspaper Publishers Assoc., which will again be combined with an impressive equipment show.

Eight sessions have been programmed to interest the production executives of every newspaper mechanical department. Chief among these, according to Richard E. Lewis, manager, ANPA Mechanical Dept., will be the discussions on ROP color and advertising subjects scheduled for all day on Tuesday, June 23.

A main attraction of the conference will be one of the biggest shows held by manufacturers and suppliers which will feature the newest in equipment and supplies for the newspaper industry. To date, arrangements have been made for 126 display booths.

Steward Will Be Keynoter

The opening session on Monday, June 22, will be officially begun with a report by George F. Marshall, Portland (Me.) *Press-Herald* and *Express*, and chairman of the ANPA Mechanical Committee. The keynote address will follow by Russ Steward, vice president, Chicago *Sun-Times*.

W. R. Coddington, production manager, Detroit *Free Press*, will head the mailroom session on Monday morning. Reports on the Sheridan conveyor system at the Washington (D. C.) *Star;* the Goss counter and stacker; the Dexter stuffing machines, and the General Strapping mailroom automation equipment will be presented by representatives of the various manufacturers.

Monday afternoon will be devoted to a stereotype session conducted by Randall Barton, production manager, Phoenix (Ariz.) *Republic* and *Gazette* and Harry Sloan, production manager, New York *Mirror*. Manning and economies of the packless mat process; general stereotyping practices; preparation of direct color printing plates, and multiple plate routers are among the topics on the agenda. Recent developments in stereotype equipment will also be considered.

Harold Hoots, production manager, Decatur (Ill.) *Herald* and *Review*, will preside at the engraving session, which will be held on Monday night. Discussions will include reports on the Du Pont photopolymer plate; the Chemco camera and etching machine; the Dirats engraving process; the Elgrama enlarging and reducing engraver, and the Engrav-A-Plate for color separated plates.

ROP Color and Advertising

A highlight of the conference will be the two combined ROP color and advertising sessions scheduled for Tuesday, June 23. The morning meeting will be moderated by J. Harold Mintun, production manager, Pittsburgh *Press*, and James L. Stott, vice president, Richmond (Va.) *Times-Dispatch* and *News Leader*. Included in the program

(*Continued on Page* 88)

Principals of the ANPA Mechanical Conference: George P. Marshall, production manager, Portland (Me.) *Press Herald and Express*, chairman of ANPA Mechanical Commitee; W. R. Coddington, production manager, Detroit *Free Press*, vice chairman, and Richard E. Lewis, manager, ANPA Mechanical Department.

MARSHALL CODDINGTON LEWIS

New machines and other products will make debut at the big New York City Graphic Arts show.

WHAT'S AT THE EXPOSITION

For the Letterp

THE letterpress printer and platemaker attending the Seventh Educational Graphic Arts Exposition to be held at New York City's Coliseum on Sept. 6-12 will be afforded an unusual opportunity to examine and compare the various machines and supplies developed in recent years expressly for his process.

If the production executive represents a company engaged in both letterpress and offset printing, he will be able to view exhibits directed to the combined process field. Under one roof, a galaxy of equipment and supply products will be displayed which many in the Graphic Arts have never before had the opportunity to see.

In order to acquaint people in each principal area of printing plant operations with the exhibits of direct interest to them, PRINTING PRODUCTION contacted exhibitors in order to learn their plans for the big show. This is the first of these stories which is aimed at the letterpress field. Also in this issue is one directed to the specialty field of printing in which we have included gravure, flexography, silk screen, business forms, etc. Many of the exhibiting companies surveyed (160 firms are participating in the show) have either not completed plans for their displays or have decided to withhold information until the opening of the Exposition.

Aimed at Small, Medium Plants

Theme of the biggest equipment exhibit undertaking in the printing industry since 1950 will be directed primarily to the small and medium size plant (see PRINTING PRODUCTION, April, page 32). According to Exposition rules, equipment on the Coliseum's floor will be limited in size and number of models.

Already scheduled for New York during Exposition week at 12 national and international printing association conventions. Principal among these are the Intl. Craftsmen's Assoc. and Printing Industry of America.

Admission to the Coliseum for the Graphic Arts Expositon will be by ticket only. These tickets will be available from exhibiting companies and at the convention hotel headquarters of the various associations meeting in New York.

If you are interested in the letterpress printing and/or platemaking field the following information should be helpful in directing you to the exhibits designed expressly for this area of the Graphic Arts.

New Presses on Display

One of the attractions of the Exposition will be Harris-Intertype's new Wrap - Around Letterpress which will be shown for the first time. The 23 in. by 30 in. single color sheetfed press (see PRINTING PRODUCTION, April, page 34) prints from plates with a relief only one-third as deep as required for conventional letterpress. Plates are thin enough to be fastened around a rotary cylinder like an offset plate. See it at Exhibit Spaces 350 and 352.

The newest model of the 13 in. by 20 in. Banthin horizontal cylinder press will be displayed by Banthin Engineering Co. Features of the unit include rated speeds from 1800 to 4200 i.p.h., Bijur one-shot lubricating system, pump and pump motor in one integral unit, and all electrical operating controls

Exhibits such as those shown below will display equipment and supplies for the letterpress printing field at the Graphic Arts Exposition. At left, Oxy-Dry Sprayer Corp. shows its line of ink offset prevention sprayers. The J. E. Doyle Co., at right, will display press driers and vacuum sheet cleaners.

tterpress Printer

By STAFF WRITERS
Printing Production Magazine

in one box. See it at Exhibit Space 311.

Two new flatbed letterpresses of Swedish manufacture are being brought to New York by Tirfing Printing Machinery, Inc. These are the Tirfing 48 and the Viking 48, each with a maximum sheet size of 35 in. by 48¾ in. They are similar in design to the Tirfing 41 press which will also be featured at this company's booth. Special arrangements will be made for anyone desiring to visit Tirfing's New York showroom. See these presses at Exhibit Space 366.

Another press exhibit will be sponsored by Miller Printing Machinery Co. Included will be a photographic display of other Miller equipment. See this at Exhibit Space 354.

Equipment for Presses

Many devices for use on letterpresses will be displayed at the Exposition. Among these will be the TAKK static control systems to be shown by the Hewson Company, Inc. These units are designed especially for eliminating static at speeds up to 3000 f.p.m. on paper of all weights and grades and other materials including Pliofilm, Polyethylene and Mylar. The TAKK units may be used on presses, slitters, folders, cutters and similar equipment. See them at Exhibit Space 307.

The Chapman static eliminator will be shown on a working model at the display of the Portland Company. In addition, this company will also display some models of static eliminators engineered and designed for specific and unusual purposes. See them at Exhibit Space 103.

The Simco Company will show for the first time an Electrostatic Locator, a meter for measuring static. The company will also show its line of static eliminating equipment. An animated demonstration will deal with the problems created by static electricity. See this at Exhibit Space 333.

Crosfield Electronics will feature its new anticipatory register controls. This electronic system is designed for measuring error and establishing the rate of change in error. It then makes corrections based on the error with proper compensation for any change in error which could take place while a correction is going into effect. See it at Exhibit Space 201.

Sheet and web vacuum cleaners for cleaning paper stock as it is fed into the press will be shown by the J. E. Doyle Company. These cleaners are designed to remove excess offset spray, dirt, dust, lint and loose paper edges from the surface of the paper stock. Latest models of the dryers will be displayed for various kinds of presses. See them at Exhibit Space 398.

Pressroom Products

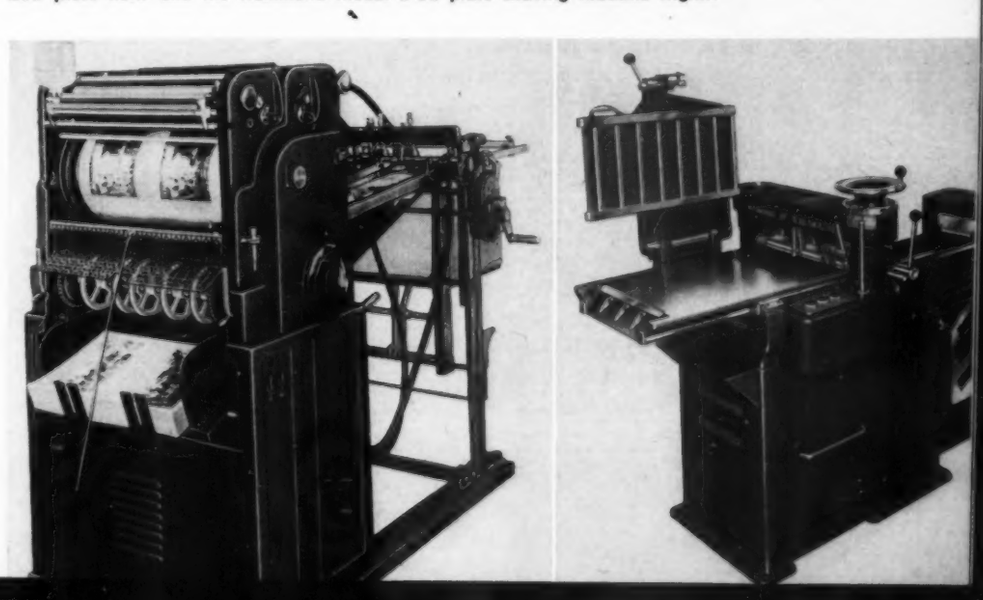
A display of rollers of various formulations for letterpress and newspaper presses will be shown by Rapid Roller Co. There will also be a colorful photographic exhibit showing the various steps in the manufacture of Mercury Rubber Rollers. The company's display area will include a miniature chromium plated machinery display of a rubber roller plant. See this at Exhibit Spaces 388 and 389.

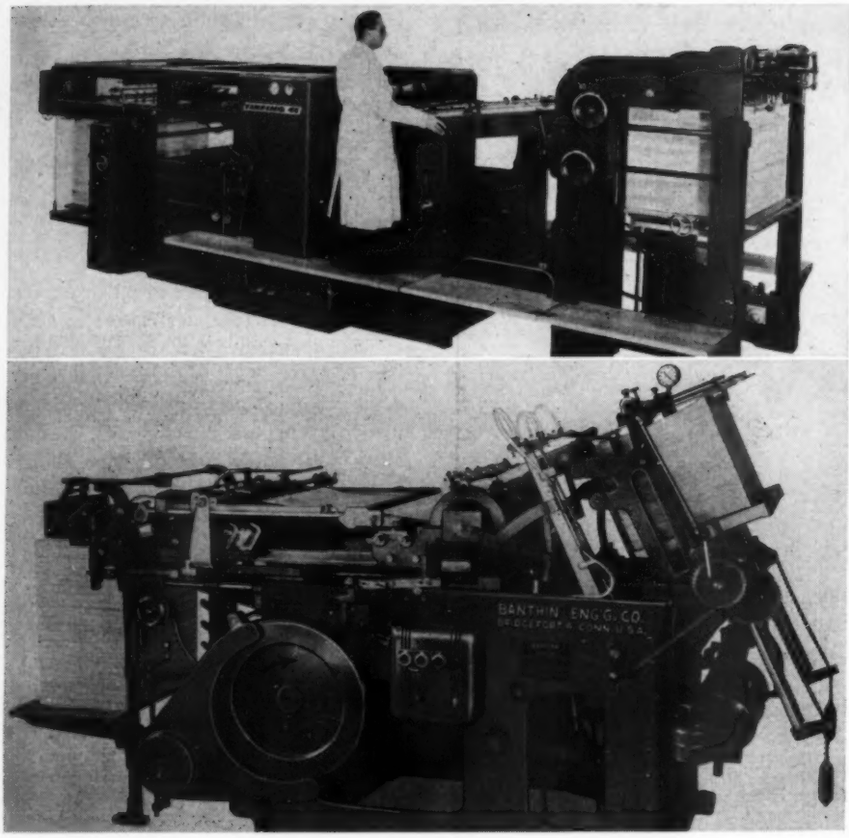
Vacuum and air pumps for printing presses and other Graphic Arts machinery will be exhibited by Leiman Bros., Inc. A feature will be the company's rotary four curved vane air and vacuum pump. Leiman states the curved vane is made of cast iron installed in a cast iron housing which provides smooth performance. An automatic oiler will also be shown. See this at Exhibit Space 403.

Three divisions of Minnesota Mining and Mfg. Co. will share a 75 ft. booth at the Exposition. 3M's Printing Products division will occupy most of the booth's display area and will exhibit for letterpress printers its plate treating system, makeready system, tympan covers, blankets, and draw sheets. See them at Exhibit Spaces 130-134.

Various models of typographic and rotary numbering machines will be shown by Roberts Numbering Machine Div., Heller Roberts Mfg. Co. Actual demonstrations of

Typical of the equipment to be in live operation at the Exposition is the Davidson Dual-A-Matic 233 press (left) and the Hammond Model S-8C plate shaving machine (right).





Arrangements will be made by Tirfing Printing Machinery at its Exposition booth for visitors to see the new Tirfing 41 press (top) in operation at its New York showroom. Below is Banthing Engineering Co.'s newest model of its 13 in. by 20 in. horizontal cylinder letterpress to be on view at the Coliseum in September.

this equipment will be made throughout the Exposition which will highlight the ease with which a press operator can remove the cipher and replace in event of damage. Also of interest will be the new high speed numbering heads for printing at 1000 f.p.m. which will be operating under power. See it at Exhibit Space 196.

Lightweight metal furniture, double wedge quoins, and honeycomb patent base will be featured by American Wood Type Mfg. Co. at its display. Also to be featured will be the Primaton makeready process. Additional new items are expected to be ready by Exposition time. See them at Exhibit Space 163.

Electronic Equipment

A display of electronic equipment for color separation and engravings will be shown by Fairchild Camera and Instrument Corp. These include a prototype of the Scan-A-Color electronic color separator, and the Illustrator and Scan-A-Sizer electronic engraving machines. The Scan-A-Color unit is designed for producing a fully color corrected set of continuous tone separations in less than an hour in negative or positive form. See this at Exhibit Space 148.

The Scanatron electronic color scanner will be displayed by Crosfield Electronics. This machine scans color separations and produces color corrected positives. See it at Exhibit Space 201.

Features for Platemakers

Of interest to letterpress printers and newspaper personnel will be the display of Hammond Machinery Builders', Inc. This will include a full-page electric scorcher, an EasyKaster 8 for casting of flat stereos, radial router, router-planer-mortiser and the Hammond plate shaver. All machines will be in operation for a live demonstration. See them at Exhibit Spaces 364 and 365.

Plate routers and mortisers will be among the equipment shown by J. A. Richards Company. In addition, the company will show its line of steel rule diemaking equipment. See this at Exhibit Space 105B.

Kenro Graphics, Inc. will exhibit its Vertical 18 camera and accessory equipment. The camera is used for making three color process plates, magnesium plates, regular engravings, contact and Autoscreen halftones, and direct product halftones. See it at Exhibit Space 127.

A demonstration of a direct method for making many types of relief printing plates by cutting them directly from rubber and plastic will be a feature of the Ti-Pi Company display. Specimens of the work will be exhibited and an engraver will be on hand to answer questions. The company will also show its resilient plastic mounted on zinc backing. See this at Exhibit Space 312.

An assortment of job and flatbed chases as well as stereotype chases will be on view at the exhibit of American Steel Chase Co. The company will also discuss with interested visitors any of its specially engineered products. See this at Exhibit Space 310.

Major emphasis of the Monomelt Company's exhibit will be placed on its AirGrip Vacuum Chuck which will be demonstrated. The unit is designed for holding plates flat, level and rigid on router, proof press or shaver. See this at Exhibit Space 303.

The operating display of Walton Laboratories Inc. will feature automatic equipment designed to avoid dry air problems in the plant and minimize humidity variations in small or large enclosures. Company engineers will be prepared to discuss specific problems and explain how Walton has solved humidification problems in the printing industry. See this at Exhibit Space 198.

Association Exhibits

The members of National Association of Printing Ink Makers will be represented at an Exposition booth in which ink research and quality control will be stressed. The exhibit will show some of the machines used in quality control and research together with printed matter on the reports given in connection with it. See this at Exhibit Space 162.

Developments in the field of du-

plicate printing plates will be shown at the exhibit sponsored by Intl. Assoc. of Electrotypers & Stereotypers, Inc. See this at Exhibit Space 222.

Education and research will be combined in the display sponsored by the Rochester Institute of Technology. RIT's Graphic Arts Research Dept. will exhibit results of recent work leading to improvement of printing processes. See this at Exhibit Space 227.

Examples of house organs to be used by printing companies may be viewed at the exhibit of Dexter Publications. The display will be designed to show printers how they can carry out a self-advertising program. See it at Exhibit Space 391.

Exposition Displays Aimed at Specialty Printing Field

THE specialty printing field, in which we include gravure and flexography, will find a number of interesting displays at the Seventh Educational Graphic Arts Exposition to be held at the Coliseum, New York City, Sept. 6-12.

In addition to the broad area of presses and related equipment there will be several displays directed to the platemaker for this big field. Some of the equipment represents models never before shown in the printing industry. Many exhibitors report they will conduct live demonstrations at their booths to acquaint production executives with the equipment being shown.

The following are some of the exhibit plans already released by companies which are active in the specialty field:

Live Press Demonstrations

Live press demonstrations of its latest models will be carried out at the exhibit of Davidson Corporation, Sub. of Mergenthaler Linotype Co. Featured will be first-time showing of a new improved method of bank check imprinting and numbering on a Model 225 Tandem Dual-Lith. Also in operation to demonstrate simultaneous printing and collating will be the company's newest machine, the Dual-A-Matic 242 small offset press which will be equipped with an auxiliary friction feed. On a Dual-A-Matic 233, Davidson will demonstrate simultaneous two-sided litho printing. See this at Exhibit Space 353.

A business forms press and gravure proof press will be among the equipment on display for the specialty printer at the booth of American Type Founders Co. ATF also plans to introduce a number of new machines at the Exposition. See these at Exhibit Space 338.

The first national showing of Nygren-Dahly Co.'s new rotary printer-sheeter featuring flexo-gravure printing and add-a-unit features will take place at the Exposition. The press will print from a roll in one, two, or three colors; numbers, perforates, punches, attaches carbons for one time carbon forms or fold over statements, imprints and delivers sheets in any size from 5 in. to 18 in. in ¼ in. increments. Speed is claimed to be 500 f.p.m. See it at Exhibit Spaces 150 and 151.

Equipment for Presses

Hewson Company, Inc. will have operating units of the TAKK High-Speed Static Control Systems at its exhibit. The company says these units are designed for killing static on all types of high dielectric materials such as Pliofilm, Polyethylene and Mylar. See it at Exhibit Space 307.

Register controls for gravure and flexographic printing presses will be displayed by Crosfield Electronics. See them at Exhibit Space 201.

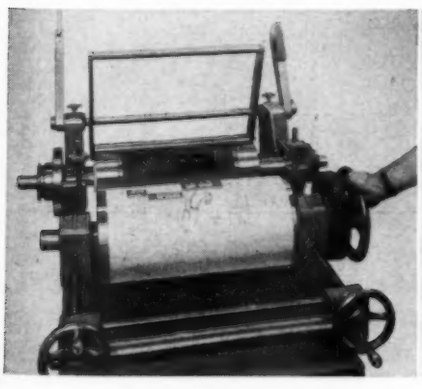
Rollers for gravure presses will be on display in the show area sponsored by Rapid Roller Company. See them at Exhibit Spaces 388 and 389.

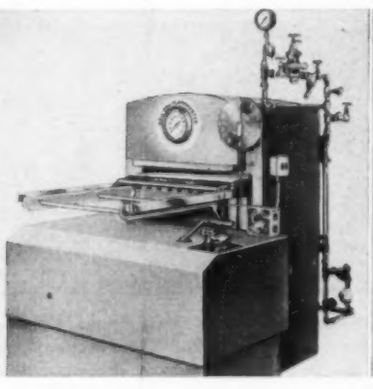
A model of the Dreissig flatbed bronzer will be shown by Henry P. Korn Associated, Inc. Also, auxiliary photogravure equipment manufactured by Schwede will be displayed. See this at Exhibit Space 374.

Aimed at the Platemaker

Mosstype Corporation will show many items of interest to rubber plate printers. Its D-Mount rubber plate cylinder, described as the integral cylinder with the removable shaft, will be demonstrated. Another demonstration will center

(*Continued on Page* 84)





This equipment will be displayed at the Graphic Arts Exposition. At left is the Mosstype Mounter-Proofer for setting up and preproofing rubber plate jobs off the press; center is a Williamson Platemaster hydraulic press for molding rubber and/or plastic printing plates; at right is a Walton dehumidifier for dehumidification of printing plant areas.

In mailroom of St. Paul (Minn.) *Dispatch* and *Pioneer Press*, the 360 ft. conveyor loop with buckets at 3 ft. intervals dips buckets to permit manual take-off at Sheridan machines.

FAST HANDLING OF NEWS SECTIONS IS PROVIDED BY

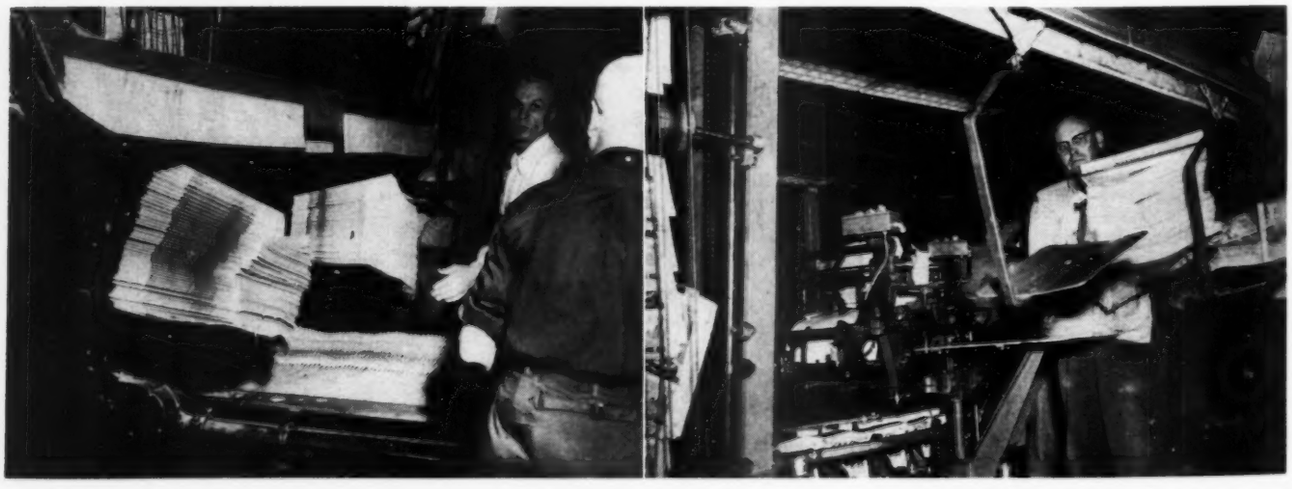
Mailroom Conveyor System

By **RALPH S. ROTH**, *Asst. Mechanical Supt., St. Paul (Minn.)* Dispatch *and* Pioneer Press.

RECENTLY a significant step in the automation of mailroom operation was introduced at the St. Paul (Minn.) *Dispatch* and *Pioneer Press*. Many will suspect that this system is "old hat", since somewhat similar methods have long been used in other plants. However, we feel we have added a new dimension which has produced substantial savings and leveled out our Saturday night mailroom production while actually reducing the workload on mailroom employees.

We have installed a continuously circulating overhead bucket conveyor system which receives the Sunday main news sections from one or more of our press deliveries and carries them to the Sheridan stuffing machines where they are removed and fed directly into the machines. All trucking of main news sections is eliminated, which has resulted in a substantial saving in manpower on Saturday night.

The conveyor system, which was manufactured by Chainveyor Corporation and installed by our own machinist force, runs in a continuous loop. The system covers all seven press deliveries and the three eight-head Sheridan machines. Buckets, which dip from the ceiling to handy working level at all loading and take-off points, are spaced at 3 ft. intervals. The entire loop is 360 ft. long. Powered by a ¾ hp. motor, the system has been entirely trouble-free since its installation.



Left: Close up view of printing press conveyor in mailroom. The two mailers remove stacks of 50 main news sections for Sunday paper and place them on traveling buckets for delivery to Sheridan stuffing machines. Right: Mailer removes papers from bucket opposite Sheridan stuffers. Work is made easier for mailer due to convenient height of bucket. System covers seven press deliveries and three eight-pocket stuffers.

How has this leveled out production? Since there are 122 buckets, holding up to 20 in. of papers per bucket, there is a continuous supply of papers available to all three Sheridan machines. Speed of the conveyor is adjustable, so that it will conform with press speeds and stuffing machine demand. If one press goes down, papers from the reserve on the conveyor and from the other press (or presses) continue to supply all three stuffing machines. If all of the conveyor buckets should be filled due to stuffing machine trouble, the men at the press conveyor take-offs stack the papers on hand trucks. These papers act as a reserve when the press stops. However, they are not trucked to the machines. The press conveyor men load from the trucks into the delivery buckets. This flexibility has leveled out the production of our Sheridan machines which readily can be seen in our Saturday night finishes.

We said the work is easier, and it is. All trucking of main news sections is eliminated, and the press conveyor men find there is less stooping and bending in loading the buckets than in piling on trucks. The Sheridan men find the same thing. Papers are delivered at convenient working height so there is no bending. Also, a continuous supply of papers means more time to jog the sections, so the feeding is more uniform.

Economics of System

The conveyor system will pay for itself through reduced manpower within two years. If one attempted to evaluate the earlier finishes, the time would undoubtedly be less than a year.

What do our mailers think of this improvement? They like it! Undoubtedly we are fortunate in this respect, but they have welcomed it, and have given 100% cooperation in making it work.

Bucket conveyors in mailrooms are nothing new. We feel the 100% elimination of trucking of main news sections is new, as well as the introduction of a direct feed to the Sheridan Stuffing Machines. It has certainly proved to be a worthwhile improvement for us, We recommend it for the consideration of anyone who has a Saturday night inserting problem.

Fairchild Unveils Newest Scan-A-Graver

A new model of the Fairchild Scan-A-Graver electronic engraving machine, offering two ratios of enlargement in addition to the one-to-one reproducing feature, has been introduced by the Graphic Equipment Div. of Fairchild Camera and Instrument Corp. Known as the Scan-A-Graver Illustrator, the machine is said to fill a market requirement between the Standard Scan-A-Graver and the Fairchild Scan-A-Sizer.

The Illustrator is designed for making enlargements directly, automatically, in ratios of 1:1.7 and 1:2.2, in addition to same size engravings. With a minimum of cropping, a standard $2\frac{7}{8}$ in. by $3\frac{3}{4}$ in. Polaroid print can be produced as a 3 or 4 column halftone engraving. The different ratios are achieved by changing the copy cylinder only, an operation that is reported to require about 3 sec.

The Illustrator has been re-designed to include a hood which assures quiet operation and office equipment appearance, allowing the machine to be operated in any department of a newspaper or printing establishment.

Another feature is a "flop switch" which causes the engraving head to move in an opposite direction to the scanning head, reversing the direction in which a picture faces for better page makeup, ad layout and special effects.

The Illustrator also features controlled distortion, allowing the operator to extend copy in either of two directions for unusual exaggerating effects. This has a varied number of uses including copy fitting in difficult layouts, improvements in perspective and appearance of products, interiors and buildings.

A reverse switch is also included in the machine, producing a white on black engraving from black on white copy. The reverse can also be engraved "half and half" by flipping the switch at the midpoint of the engraving.

For same-size engravings, the machine will accept any copy up to 8 in. by 10 in. The 1.7 enlarging cylinder accepts copy up to $4\frac{3}{4}$ in. wide, while the maximum copy size for the 2.2 enlarging cylinder is $3\frac{1}{2}$ in. wide.

The Illustrator will produce engravings up to 8 in. by 10 in. on Scan-A-Plate engraving material. Copy can be engraved singly or ganged. The new machine is available in either 65 or 85 screen. Circle No. 252 on Reader Service Card for more information.

New Address for Champlain

Champlain Company, Inc. has moved to its newly constructed factory and offices at Harrison Ave., Roseland, N. J., it was announced recently. Telephone number is CApital 6-8000.

Newest of the Fairchild Scan-A-Graver electronic engraving machines is the Illustrator model shown here which offers two ratios of enlargement in addition to the one-to-one reproducing feature.

Trade Plants Will Make Du Pont Photopolymer Plates

APPOINTMENT of several trade service shops to produce photopolymer printing plates commercially was announced by E. I. du Pont de Nemours & Co. Announcement was made at the April annual spring technical conference of the Intl. Assoc. of Electrotypers and Stereotypers, Royal York Hotel, Toronto, Can.

The first shops, each exposing and processing photosensitive plastic printing plates as a part of Du Pont's continuing field evaluation program, include: Typographic Service, Inc., and Beck Engraving Co., Inc., Philadelphia, and Industrial Engraving Co., Easton, Pa. A limited number of additional outlets soon will be established, Du Pont announced.

Du Pont's Paul H. Smith said that limited commercial availability will be the next step when the evaluation program is concluded.

Kinds of Plates

Manufacture of two new types of plates—Type 180 (0.180 in.) and Type 240 (0.240 in.)—was announced. They are aluminum-backed, pre-curved plates which may be used on existing rotary presses. Three other types of experimental plates are being produced: Type 50 and Type 60 (0.050 in. and 0.060 in. respectively) steel-backed flexible plates, and Type 150 (0.150 in.), an aluminum-backed rigid plate for flatbed press use. The Types 50 and 60 may be used for either rotary or flatbed printing.

Printing samples as exhibited by Smith from the field evaluation program included *Ranally World*, house organ of Rand McNally & Co.; business forms printed via dry-offset; a Du Pont advertisement which was printed two up in a trade newspaper; New York *Daily News Record*, from stereotypes molded from a photopolymer plate; a Du Pont advertisement which was printed directly from a photopolymer plate in *Electronics Outlook;* press pulls of a combination halftone and text plate from *Presbyterian Life* at 74,000 impressions through 584,000; progressive process color proofs of a *National Geographic* map, and some black-and-white production runs from issues of *Popular Boating* and *Time* magazines.

Smith said approx. 2100 photopolymer plates, or 275,000 sq. in., total, have now gone to press in production runs at more than 20 test sites.

Du Pont is actively studying the making of duplicate plates from photopolymer originals. "Scouting trials," Smith said, "lead us to believe we'll be able to develop techniques for making conventional electrotype and stereotype molds from photopolymer plates."

Another area reported under study is that of ink solvents for type washes. "We know," Smith said, "that some type washes have a detrimental effect upon photopolymer plates. The use of acetone and alcohol, for example, should be avoided." He said petroleum and coal tar derivatives such as kerosene, benzene, naphtha, and gasoline are suitable cleaners for photopolymer plates.

Smith indicated Du Pont is spending more than a million dollars a year on the over-all project and that considerable effort is being directed toward improved manufacturing techniques which are expected to reduce plate costs.

Seeks Control of Gravure

SCIENTIFIC control and standardization of methods and materials highlighted the 10th Annual Convention of the Gravure Technical Assoc. this year. Evidence of this development were the submission of proposed standardized rotogravure color process inks for newspaper supplements; wide agreement on standardized density ranges for positives; work to be undertaken to evaluate and standardize the several gravure processes; and a shift to the use of stable base film positives instead of glass by major publishers and printers of gravure publications.

Joseph W. Feeney of the Lord Baltimore Press noted that gravure printing has only scratched the surface of the boxboard industry. In 1958, he reported, there were 2.3 million T. of boxboard converted by all processes into 115 billion cartons valued at $1 billion.

L. J. Remington of the Champlain Co. traced the development of gravure carton printing and die-cutting from 1940 to the present. Today's gravure equipment produces on one particular job, 1230 finished carton blanks per minute compared to 320 in 1940. He declared that over 800 rotogravure presses are now in operation exclusively for package printing in the U. S. Of these, 100 are printing boxboard.

Two views of gravure and die-cutting production were given, one favoring inline operation, and the other favoring separate printing and cutting operations. J. Gibson McIlvain, jr., Downington Paper Box Co., discussed inline operation, giving seven basic reasons which caused his company to decide upon inline equipment. They are: Better ability to inspect finished product; greater ability to find more readily the cause and amount of spoilage; a greater resale value of scrap in many cases; better realization in production of allowable tolerances; distribution of labor costs reduced to a minimum; cost of capital is outweighed by other considerations; material costs reduced because of advantages gained by the effect of inline operation.

He explained that if the value of the product is very high in relation to the value of the labor in its conversion, speed is less important than the amount of scrap generated. "Thus, by our figures, an increase in speed of over 50% including cutting would be required to offset an increase in spoilage of 3%," he said.

The opposite view was presented by Fred Bohlke of Mead-Atlanta Paper Co. Principal points in his company's decision to do the gravure printing and die-cutting as sepa-

rate operations are: Five years experience in operation of both flexographic inline equipment and separate flexo printing and die-cutting equipment. The latter proved more flexible and it was possible to keep one operation going while the other was shut down.

Speeds of platen-type cutting units are about 450 f.p.m., remarked the speaker. This is less than 50% of the speed of most gravure press equipment, Bohlke said, which acts as a "governor" on the gravure press if it were run inline. Waste could be controlled to approximately the same degree that others were experiencing in inline operation. This is done by web guide controls

(*Continued on Page* 85)

Six Color Gravure Press Makes 2500 Cartons per Min.

DEMAND for high-speed production of an increasing variety of packages resulted in the installation of a new six color rotogravure press by the National Folding Box Div., Federal Paper Board Co., at its New Haven, Conn., plant.

National's gravure operation manufactures packages for Kent cigarettes, Talon zippers, Peter Paul Mounds, and other consumer products. Design for the new Talon package called for printing three colors on one side, two on the other, with inline cutting, creasing and stripping, and delivery of finished carton blanks using 9 pt. board.

Turns Out Complete Product

The Champlain webfed rotogravure machine prints, cuts, creases, strips and delivers waste-free carton blanks. Capable of 200 i.p.m., the press currently is turning out one particular carton at the rate of 2500 per min.

Three color units will print on either side of the web. Two are equipped with extended driers for treatment of heavy laydowns of lacquer or other coating materials. Press will handle paperboard from 9 to 30 pts. thick and up to 45 in. wide.

Paperboard is fed from the last printing unit to inline cutting and creasing unit, then automatically stripped of waste. The new Champlain C300 Proportional Registron, controls registration to satisfy operating tolerances of ± 0.025 in. for color-to-color register and 0.015 in. for cut-to-print register.

It is said material handling is minimized and paperboard stock conserved by continuous automatic feed. A two position turnover roll stand lifts a mill roll into position before the running roll has been depleted, and the two are spliced by an automatic web splicer. A pneumatically controlled prefeed unit with electric drive unwinds paperboard from the roll stand. The paperboard is then decurled, side-guided, and vacuum cleaned. A hydraulic unit feeds it to the first color unit under controlled tension.

Use of the light stock required that the intermittent feeding of the web from final color station to the in-line cutter-creaser unit, and the transfer of the diecut sheets to the waste stripping unit be free of snap. It was determined after test runs were made on 9 pt. sulfate board that acceleration and deceleration were gentle enough to cause no damaging shock to the web. Excessive shock would result in jamming, expensive downtime and waste of stock.

Web stability was insured by the cutting bolster design. Reciprocating action of upper bolster against fixed lower bolster provides straight-line support of the web.

Small size of the carton indicated that several forms up be placed in the die, making maximum use of 44 in. equipment. This, like the light weight of the stock, could create a delivery problem. Nevertheless, individual cartons were deposited on the delivery belt under perfect control.

Further, heavy tabbing between successive cartons was found to be unnecessary.

Champlain's six color rotogravure press with in-line equipment automatically produces up to 2500 waste-free carton blanks per min. Below: Attached to the press is the cutting and stripping unit.

R&EC to Analyze Future of Processes

A sparkling program has been prepared for the Research and Engineering Council's May 18-20 annual conference. The conference will be held at Sheraton-McAlpin hotel, New York City.

The first two conference days will be devoted to speaking programs. On the third day (May 20) those attending the conference have a choice of five plant visitation trips. Arrangements have been made for trips to (1) Conde Nast Press and Time, Inc.'s Springdale Laboratories; (2) Mergenthaler Linotype Co. and Fairchild Graphic Equipment, Inc., or (3) Intertype Company. Included with trip No. 3 is your choice of a visit to Publishers Printing-Rogers Kellogg Corp. or the New York School of Printing.

Varies Opening Program

The Monday morning (May 18) opening session carries four speakers. Bernard R. Halpern, E. I. du Pont de Nemours & Co., will discuss conversion of relief forms for photomechanical reproduction. C. M. (Larry) Flint makes introductory comments regarding a sound movie on photocomposition.

With a query, *Magnetic Inks—Do They Work?*, Vice Pres. G. L. Erikson of Braden Sutphin Ink Co., will open the discussion and will furnish the answers. Information about recent advances in powderless etching will be presented by Dr. Marvin C. Rogers, research coordinator, Photoengravers Research, Inc.

The Monday afternoon panel meeting will be moderated by F. E. Church of Time, Incorporated. Panelists will tell about getting an idea from copy to reproduction and problems along the way. At this session will be pointed out the advantages and limitations of letterpress, lithography, and gravure as related to artwork.

At the dinner session Monday evening, A. E. (Gus) Giegengack will speak on the subject, *Looking Back—and Ahead.* Giegengack is president and general manager of the Seventh Educational Graphic Arts Exposition, former U. S. Public Printer and two-term president of the Intl. Craftsmen's Assoc.

Future of the Processes

On Tuesday morning (May 19) a panel session will be held on the future of the processes. J. Homer Winkler, Battelle Institute, will serve as moderator. Panel member speakers will be: gravure, Oscar Smiel, Intaglio Service Corp.; screen process, Herbert Sperry, Color Process Co., Inc.; letterpress, Joseph Chanko, Conde Nast Press; flexography, Sigfried Higgins, Williamson & Co.; lithography, Paul Lyle, Western Printing and Litho Co.

Tuesday noon, Matthew J. Murphy, editor of McGraw-Hill's *Factory Magazine,* will be the luncheon speaker.

The subject of color will dominate the panel session on Tuesday afternoon. Scheduled speakers are: F. L. Wurzburg, jr., on the subject, *Introduction to Color;* trends and new problems in color reproduction will be handled by Frank Preucil, Lithographic Technical Foundation; John M. Centa, Du Pont's Photo Products Dept., will present a comparison of photographic masking systems. Charles Mansell, Balding & Balding, Ltd., will give a talk entitled *An English Printer Reports.*

Information may be obtained from: Robert E. Rossell, managing director, Research and Engineering Council, 5728 Connecticut Ave., Washington 15, D. C.

Exposition Announcement

National Graphic Arts Expositions, Inc., sponsors of the Seventh Educational Graphic Arts Exposition, reports that it has no connection with any other show and has taken no other space in New York City for exhibitors.

The Exposition has the backing of the representatives of the entire printing industry of America, said A. E. Giegengack, president, and the many trade associations affiliated with the printing industry, which will meet in New York at the same time. It is claimed the show will be the best Graphic Arts Exposition in history.

New Offices for Crosfield

Crosfield Electronics, Inc. has announced the transfer of its head offices and laboratories to a new plant at 47 New York Ave., New Cassel, Westbury, Long Island, N. Y. Telephone number is EDgewood 4-1940. The new offices will serve as headquarters for the Eastern part of the United States and Canada.

What's Ahead for the Reader: Operations of one of the best known business newspapers, *The Wall St. Journal,* will be the subject of a June issue story in *Printing Production.* The *Journal* prints the same newspaper simultaneously in five different cities across the country. The coordination behind such a feat makes informative reading for production management executives of all printing plants.

Anyone interested in printing quality control will find a unique approach to the subject in an entertaining story written by a printing plant production manager.

Litho printers will find answers to platemaking, press, ink and paper problems in a report on the Lithoshow Forum held this month in New York City.

The June issue will also include advice on improved etching techniques for photoengravers and a message from the ANPA Mechanical Committee. Two other stories will contain information on what will be shown at the Graphic Arts Exposition in September for use in composing rooms and binderies.

Interested in production short cuts, gadgets, gimmicks and money saving ideas? Those who are should find real value in *Printing Production's* Idea File to be published as a regular feature starting in an early issue. We will publish your tips, hints and ideas if you will mail them to: Idea File Editor, *Printing Production,* 1276 W. 3rd St., Cleveland 13, O. Payment will be made for those accepted.

SUPERIOR

BECAUSE...

inserting-stitching-trimming in one operation decreases cost/thousand...

and BECAUSE...

Sheridan automatic saddle-binding equipment offers maximum hourly yield...

we invite Production Executives

to compare equipment claims and performance...and recognize Sheridan Superiority

SUSTAINED PRODUCTION—Sheridan inserter, gang stitcher and multi-knife trimmer units are designed and quality built to minimize non-productive downtime . . . a *bonus* value for increased production.

HIGH OPERATING SPEED— All Sheridan inserters are designed to run at the highest *practicable* production speeds up to 150/min., hour after hour . . . shift after shift. A Sheridan automatic stitcher-trimmer will *outproduce* any comparable machine.

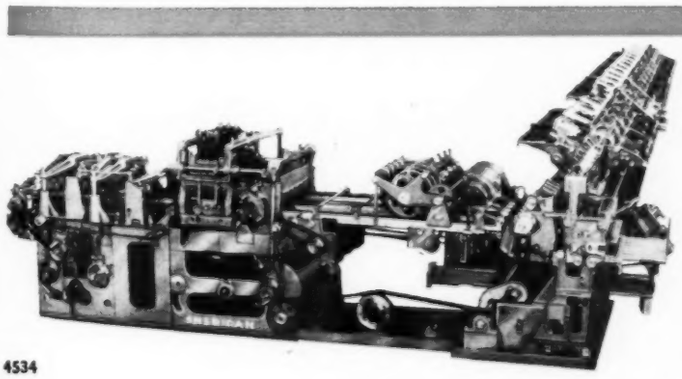
EASE OF LOADING & UNLOADING—inserter has low loading position to eliminate the need for platforms . . . provides improved continuity of loading. Trimmer delivery is at efficient pick-off height . . . can be arranged to suit your needs.

AUTOMATIC REJECT—of books of wrong thickness . . . without stopping production . . . is standard equipment. Caliper is accurate and easily set for each job.

UNDIVIDED RESPONSIBILITY— every unit is built by Sheridan . . . sold by Sheridan . . . serviced by Sheridan.

WIDE RANGE—the Sheridan will automatically insert,stitch and trim books from 3-3/8 x 7″ to 12 x 19″ one-up, from four pages to 64 or more, to one-quarter inch in thickness (one half inch book thickness), in a wide range of stocks, from thin bond and newsprint to heavy cover stock, with 3,4, or 5 trim cuts.

FLEXIBILITY OF APPLICATIONS—the Sheridan unit construction principle permits arrangement of unit to suit plant layout requirements. Additional units . . . inserter pockets, 3-knife trimmer, five knife trimmer, collecting drum or 2-up attachment . . . can be added at any time to suit production needs. Trimmers can be connected to side or perfect binders. Compare these points (and any others) of Sheridan superiority. Your choice will be Sheridan . . . as it has been with production-conscious plants everywhere. The T. W. & C. B. Sheridan Co. 220 Church Street, New York 13, New York.



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SINCE 1835 **SHERIDAN**

BRANCHES:

Chicago, Ill. Boston, Mass.
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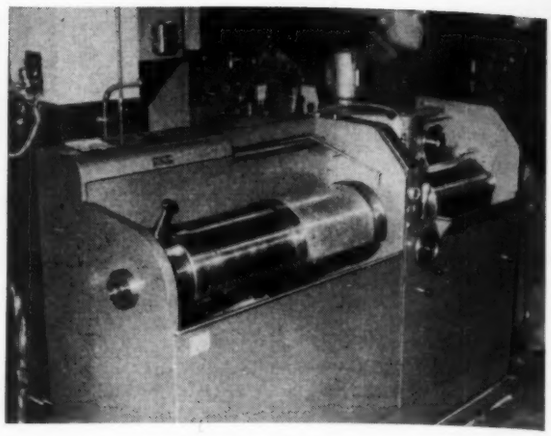
For More Information Circle 157 on Reader Service Card

Norwegian Router Designed to Handle Up to Six Plates



In Oslo (Norway), the morning and evening *Aftenposten* has been instrumental in developing an automatic machine for routing six stereotype ROP color plates simultaneously. After using the new equipment for two months, Production Mgr. Riddervold reports satisfaction with the machine as well as the saving of considerable routing time compared to operation of single routers.

The routing of stereotype ROP color plates for daily newspapers, especially where they are in multiple, can take up a considerable amount of time.

Production Mgr. Hans H. Riddervold, of Oslo (Norway) *Aftenposten*, reports development of an automatic machine upon which can be routed six ROP color plates simultaneously.

Riddervold said his paper recently was faced with the problem of an ever increasing number of color plates. Four-up plates are run. The firm had only two manually operated routers. The making of four plates of each color brought about an intolerable situation because of the necessity for doing the same thing over and over again.

The new routing machine consists of one, two or three-cylinder segments. Two, four or six plates can be routed automatically.

The plates to be routed are fastened to the cylinders against margin bars by means of two or four spring loaded clamps at the end of the cylinder.

At the right side of the machine, the routing head is mounted on top of the cylinder. At the left side, one or more routing heads are mounted directly underneath the cylinder.

The heads are held in routing position by solenoids when the machine is working automatically. Speed of the router bits is 11,000 r.p.m.

After the routing machine has been plated, it is programmed by means of a pointer. The pointer is linked to a magnetic tape recording device. Plates will be routed where the pointer has not touched the plate surfaces.

When the machine is programmed, all of the routing heads are set at the extreme left position. Starting the machine, the heads will

Specifications Sheet Provides Fast Press Information

Sensitive response to the demand for color printing is reflected in the press specification sheet shown above. All presses in the plant of The American Offset Corp., Chicago, are equipped to print one or more colors in addition to black. Executive Vice Pres. Thomas P. Mahoney states that most of the presses presently are on a three-shift operation. Size of the original form is 11 in. by 8½ in.

Use of the press specification sheet by those concerned at American Offset assures quick determination as to whether or not any certain press or presses can be used for a contemplated job. Also, accuracy is assured when making out specifications for the job. We're passing along the idea to you as an example of one of the important information items so necessary in successful plant operation.

PRESS SPECIFICATION SHEET—The American Offset Corporation

PRESS MAKE	COLORS	SHEET SIZE MAXIMUM	SHEET SIZE MINIMUM	MAX. PRINT AREA	PLATE SIZE	PLATE GRIPPER	BLANKET SIZE
Miehle	4	52 x 76	28 x 42	51-5/8 x 76	58 x 77	3-3/4"	57 x 77½
Harris L.S.K.	2	42 x 59	22 x 34	41¼ x 58	45½ x 59	3"	52½ x 59½
Harris L.S.K.	2	42 x 59	22 x 34	41¼ x 58	45½ x 59	3"	52½ x 59½
Harris L.S.H.	4	50 x 69	25 x 38	49¼ x 68	55 x 69	2-3/4"	61½ x 69½
Harris L.S.G	2	50 x 69	25 x 38	49¼ x 68	55 x 69	2-3/4"	61½ x 69½
Web Poly. Universal	*4	17-3/8x24	Fixed cut off 17-3/8	16-5/8 x 23	20 x 24½	1½" bends, center work	21 x 25

*Web Offset: This press can print 2 sides of stock using any combination of 4 colors. 4 colors 1 side, 2 colors 2 sides or 3 colors 1 side and 1 color reverse.

travel from left to right, leaving the wanted areas untouched. Routing time after programming takes about 3 min.

For the final closeup routing, the machine may be operated manually. The operator's position then is on the right. This routing head is enclosed in glass, and is illuminated by spotlights. An air jet blows away the metal dust and chips.

Manual handling of the automatic router, reports Riddervold, is as easily done as with any single plate router.

Dimensions of the six plate machine are 6 ft. long; 2 ft., 8 in. wide and 8 ft., 3 in. long.

Thos. E. Dunwody Dies

Thomas E. Dunwody, president since 1952 of the Intl. Printing Pressmen and Assistant's Union of North America, died in a Knoxville, Tenn., hospital on May 2 after a short illness. He was 71 years old. In addition to directing one of the printing industry's most powerful unions, he also served as director of the Union's Technical Trade School at Pressmen's Home, Tenn., and was editor of both *The American Pressman* and *The Specialty Worker* magazines.

DUNWODY

Dunwody's career began in 1905, when only 18, he became editor and publisher of the St. Matthews (S.C.) *Recorder*, but soon moved on to the pressroom of the Chattanooga (Tenn.) *Times*. His direction of the pressmen's union activities won the confidence and respect of many.

He is survived by his widow, a sister and two brothers.

Self-Advertising Exhibit Sponsored by PIA, Miller

Plans are being made for the eighth annual Printers and Lithographers' Self Advertising Exhibition and Awards, co-sponsored by Printing Industry of America, Inc. and Miller Printing Machinery Co. Awards will again include three $1000 cash prizes and nine Benjamin Franklin statuettes. Presentations will be made at the PIA Convention to be held at the Hotel Waldorf-Astoria, New York, N. Y., Sept. 6-10.

Entrants eligible to compete include all letterpress, lithographic, gravure, silk screen and allied process printers in the United States, Canada, and the Hawaiian Islands, whether PIA members or not. Material submitted for consideration must be from advertising programs completed during the period from Sept. 13, 1958 to Aug. 14, 1959, the closing date for the contest.

Further information and entry forms may be obtained from the following: Printing Industry of America, Inc., 5728 Connecticut Ave., Washington 15, D. C.; Miller Printing Machinery Co., 1117 Reedsdale St., Pittsburgh 33, Pa., and Sears, Limited, 253 Spadina Rd., Toronto 4, Can.

Up to 72 pt. Type Size on New Fotosetter

Super Display Fotosetter is the name of a new photographic line-composing machine, on which it is announced composition can be set in all sizes from 3 pt. through 72 pt. at keyboard speed. The machine was introduced recently by Intertype Company, a division of Harris-Intertype Corporation.

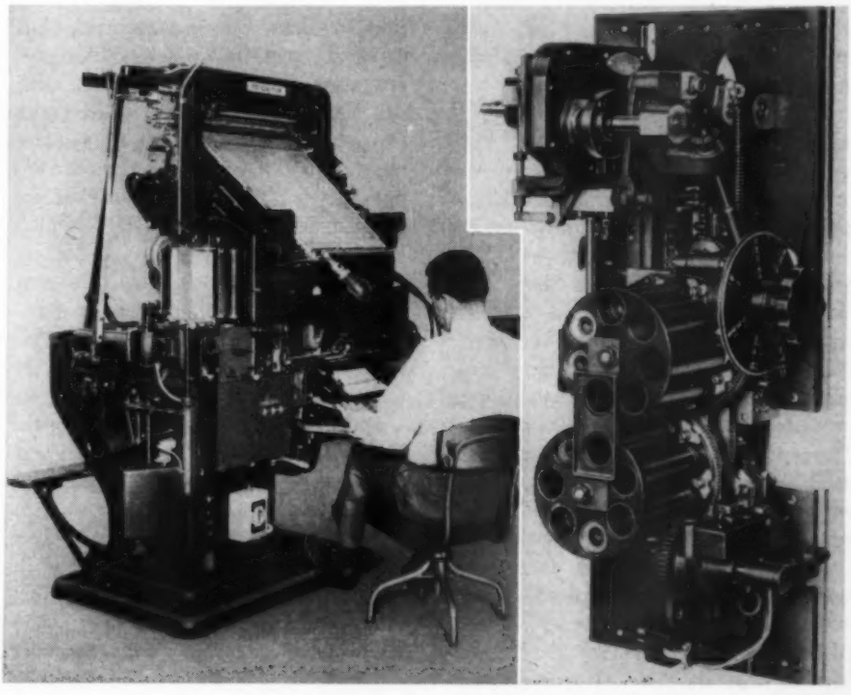
The machine extends the type size range of the Intertype Fotosetter from the present 48 pt. size using 12 pt. matrices, to 72 pt. type through the use of 18 pt. matrices and 4X lens and gear train.

The Super Display Fotosetter takes all standard film or photosensitive papers in rolls of various widths up to 51 picas, reports Intertype Company.

The new lens turret arrangement, providing 14 lenses, permits use of many type sizes without interchanging lenses.

To accommodate wider matrices needed for larger type sizes or extended width faces, a 90 channel magazine has been made available. Mixing between fonts is provided by the 90 channel magazine and the regular 117 channel magazine.

Through the combined use of the four basic matrix sizes, namely, 6, 8, 12 and 18 pts., in conjunction with lenses and gear trains ranging from 1/2X to 4X, 30 different sizes of type are available, ranging from 3 pt. to 72 pt. By mixing different sizes of Fotomats, states sponsor, complicated display composition can be produced directly from the keyboard, made up in blocks and ready for rapid pasteup. Circle No. 251 on Reader Service Card.



Intertype announces that complicated display composition from 3 pt. through 72 pt. may be executed on its Super Display Fotosetter. At right is shown turret with two seven-lens cylinders.

By GYAN P. MADAN

School of Printing Management, Carnegie Institute of Technology, Pittsburgh, Pa.

PART IV

Halftone Making for

ENGRAVING-OFFSET

Theory and techniques are explained

BY this time we have known that with the conventional glass cross line screen, the making of halftone demands expensive precision apparatus and a high degree of skill and experience. The contact screen or vignetted screen is simpler to use.

Still this does not solve the problem of many owners of Multilith Duplicators or other offset users who are busy struggling in expanding their span of work from simple line reproduction to halftone reproductions. These people neither can afford to buy expensive precision equipment nor can afford to waste considerable amounts of time just experimenting with different techniques for producing halftones. So, because of these difficulties, the idea of developing a film which, on simply exposing without a screen and using the same equipment required for producing line negatives, produces an image in the form of a dot pattern instead of a continuous tone image, was considered to be very attractive during the past few years.

In fact, one of the first successful attempts to do this, resulted in an experimental film known as Kodak Bi-Screen Film, developed by A. Murray in 1935. However, the dots produced on this film were too heavily veiled over and not sharp enough to print directly onto a printing plate. So it never became a regular commercial product.

Later on, the basic principle for a prescreened film was developed by Louis Flader in 1938. It was stated that a film of this type across its whole surface should vary in its sensitivity which will control the size of the dots in the screened image proportional to the amount of light striking the film. Research was carried on this principle in the laboratories of Eastman Kodak Co. by John A. C. Yule and Richard E. Maurer whose efforts resulted in development of the material in 1953.

The film thus developed is known as the *Kodalith Auto-Screen Ortho Film,* which does not require use of the glass halftone screen or contact screen. In other words, the film has the dot pattern built right into the emulsion and thus produces a halftone negative automatically. The detail of the screen image produced on this film is also sharp and clear.

The method as to how this film has greatly simplified the production of halftone negatives, can be explained in the following words. It is very easy to work. Any camera operator with experience in line photography is able to produce good halftone negatives with training of one or two days.

Steps involved are the same as required in producing a negative in the camera in the normal way. The copy or original is placed in the copy board, the arc lamps are set at proper angle and distance. After focussing, a piece of film is placed on the vacuum back of the camera. Being orthochromatic, the film can be handled easily in red safelight. Two exposures are made: (1) Detail exposure based on the highlight density of the subject, and (2) Flash exposure.

The detail exposure is given to control the size of the highlight dots. The flash exposure, which is a uniform fogging exposure, is given for controlling the contrast and size of the shadow dots.

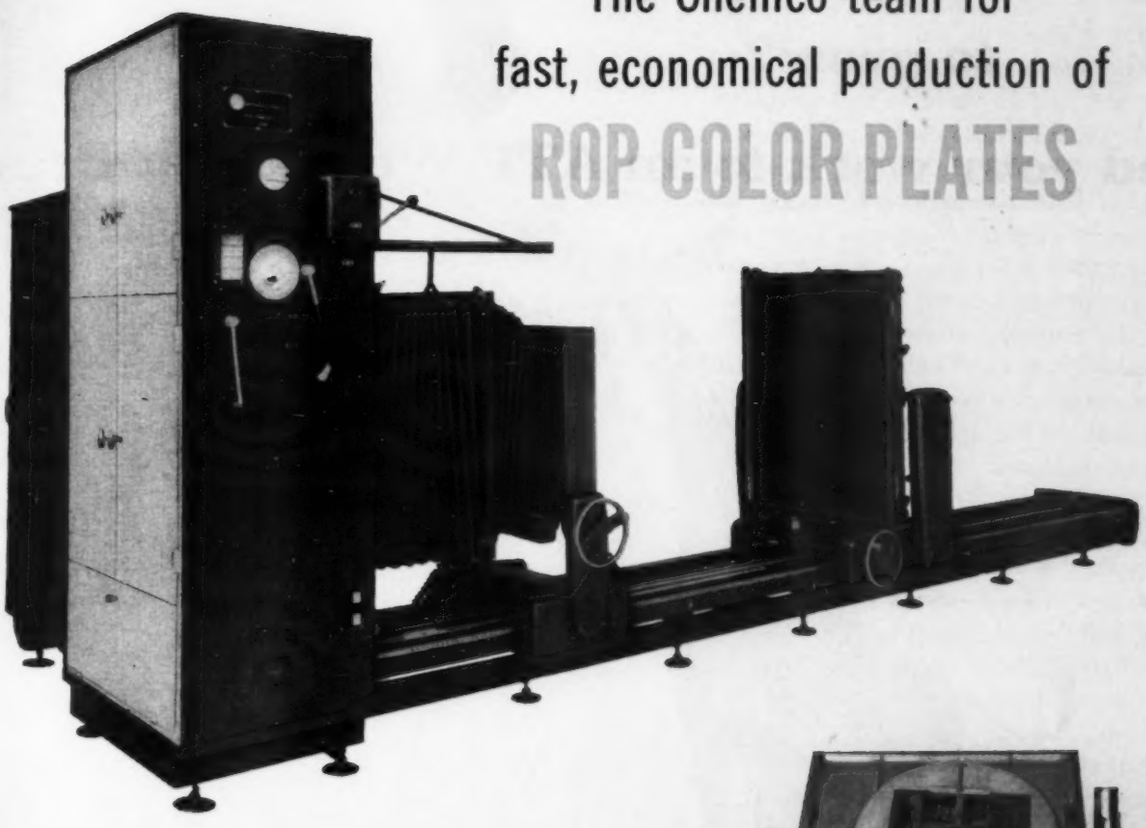
It must be stated that in making the detail exposure, it does not involve the limitation or the necessity of working to a system based on the ratio between the camera extension and lens aperture. In other words, as previously explained, size of dot formation is proportional to the different amounts of light striking the film—and not to lens aperture or camera extension. One can use any aperture for making detail exposure.

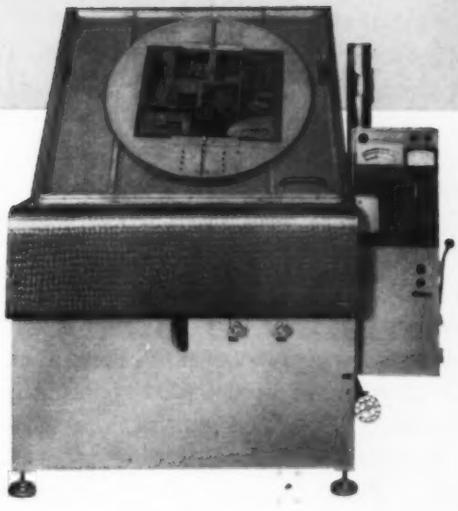
Avoid Short Exposures

But there is one limitation. The high speed of the film plays an important part in the selection of lens aperture. It is the claim of the manufacturer of Autoscreen film, and the practical working experience has also shown that very short exposures should always be avoided with Autoscreen film, since the negatives will be too contrasty and the highlight dot quality unsatisfactory. For this reason, lens aperture which can produce a satisfactory negative with an exposure time equal to the time required for a line shot is generally preferred, which of course varies according to

(*Continued on Page 62*)

The Chemco team for fast, economical production of ROP COLOR PLATES





CHEMCO OLYMPIAN ROLL FILM CAMERA- this unique and versatile camera combines the speed and economy of roll film operation with the precision and accuracy necessary for fine newspaper ROP color work. The Chemco Olympian camera holds four rolls of film up to 30" wide and features a 31½" circular screen, horizontal and vertical lens board movement and an oscillating transparency holder. A new three point register system assures perfect register of the most delicate color work.

DOW-CHEMCO POWDERLESS ETCHING MACHINE- Chemco is the original manufacturer of powderless etching machines under license by the Dow Chemical Company. The Dow-Chemco powderless etching machine has proven ideal for producing newspaper line, halftone and combination engravings on zinc and magnesium by fast, high quality powderless etching methods. Backed by Chemco's helpful service, the Dow-Chemco is the finest etcher developed for the powderless etching process.

Chemco is the ideal source for all your ROP color platemaking requirements. Our 34 years of experience, devoted solely to the needs of photomechanical reproduction, provides a unique background covering all phases—equipment, film and chemicals. You can rely on Chemco for the establishment and maintenance of a practical and efficient ROP color platemaking operation.

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Main Office and Plant—Glen Cove, N. Y.

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For More Information Circle 40 on Reader Service Card

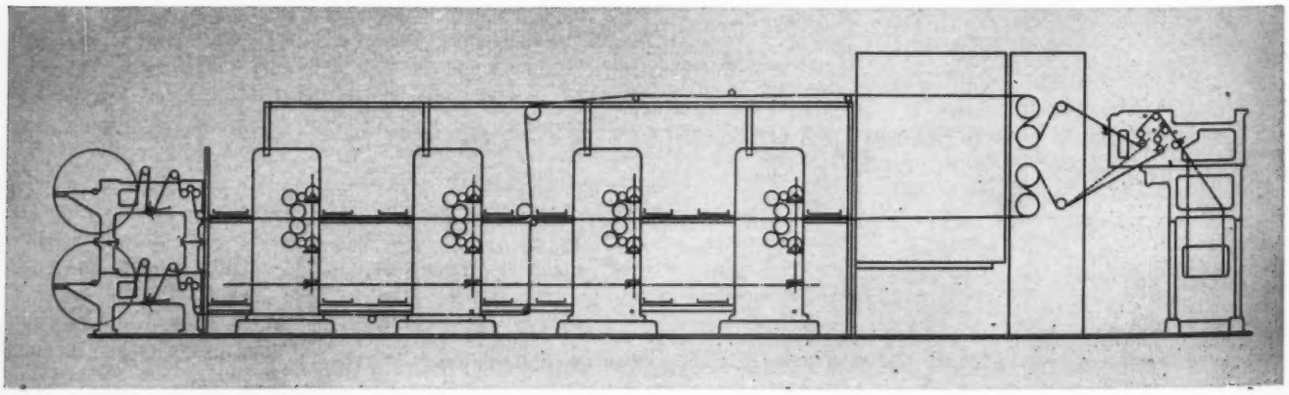
Do you want to grow?

Feed your work to an ATF Web Offset Press

You don't have to be a giant in the printing business to take advantage of the high production and profits from an ATF Web Offset Press. Small, medium and large printers, in ever-increasing numbers, have successfully planned their growth around such installations. Here are some of the important reasons why:

You produce at speeds up to three times as fast as the fastest sheet-fed equipment (plus the extra advantages of in-line folding, imprinting, perforating, etc.). It is not unusual to find printers turning out 25,000 or more impressions per hour on ATF Web equipment. *That* is production at a *real profit.*

You can get top quality at these high speeds. Many ATF Web Press owners tell us the quality of work produced is equal to that of the finest sheet-fed presses, and easier to achieve. Some say web press printing is superior.



Just examine the tremendous volume of all types of printing being done on these presses—folders, circulars, catalogs, pamphlets, broadsides, house organs, magazines, etc. —and you'll realize how fully competitive web offset is today.

You can start with as few units as you wish, add more when your business warrants it. ATF Web Offset Presses are built on the unit construction principle so you can add to them at any time.

You produce finished jobs on most ATF Web Offset presses—printed, cut and folded (plus other operations, if required). Many of these ATF Web Presses are designed with a folder, or folders, built-in. Think of it this way: you print the job and the folding is free! Or, stated another way, the printing is done for the cost of the separate folding operation when you print on a sheet-fed press. While you would normally think of the folding as being the bonus on a web press, the reverse is equally true: you could say you are getting the printing done for nothing when folding. This brings the economy of web press operation into very sharp focus.

Flexibility to suit your needs is available in ATF Web Offset Presses. On a four-color press, for example, you can run four colors on one side, three on one and one on the reverse, or two colors on each side. On perfecting (blanket-to-blanket) ATF Web Presses, you can print on more than one web of paper at a time, and with the proper press arrangement you can print more than one job on the press at one time—giving you advantages you cannot obtain with any other press equipment.

Exclusive engineering features are yours in ATF Web Offset Presses. ATF's patented cylinder arrangement and patented lead rollers give you simple, effective control of the web when printing and insure accurate register. These are just two of the advantages you can get only from ATF.

What about length of runs? It is true, of course, that ATF Web Presses are ideal for producing long runs at a profit. Every printer likes big jobs, but they may tie up the whole shop and require so much handling that profits disappear. This is where the ATF Web Press takes over—profitably. But these presses handle *more* than just the big orders. Many shops find they can gang up short runs (when several require the same stock) and turn them out in a fraction of the time required by sheet-fed presses. If sizes, colors and stock are the same on many jobs, very short runs can be made with top profits.

Job printing on a web press is especially profitable on the ATF Green Hornet, which prints from rolls up to 17½" wide, delivers cut sheets 11½" long. This press, available in two, three or four-color models, prints one or both sides of the web, and can be equipped with numbering and imprinting units as well as slitters and perforators.

ATF offers web presses to suit most requirements: a full line of standard business forms presses, five standard-sized web offset publication presses, and the web-fed Green Hornet commercial job presses.

Why not find out how one of them can help your business grow? Ask your ATF Web Division Representative, or write to the Web Division.

American Type Founders, 200 Elmora Ave., Elizabeth, N. J.

the light source used. Making it more simple and clear, we can say that a lens aperture of *f*.22 is suitable with tungsten light source, and a lens aperture of *f*.32 with white flame arc lamps.

Use the Exposure Computer

Estimating correct exposure time is always a complicated problem in process photography, whether line or halftone. Some trial and error procedure is involved. Although after practicing for a while with the trial and error method one can easily determine exposure time. But our experience has proved that much time and material can be saved by using the Kodak Graphic Arts Exposure Computer. Using the computer, a test negative is made from the density guide provided, and then from the computer correct exposure for any type of original can be calculated provided the camera setup and development conditions remain the same.

However, in order to serve as a guide, and not as a standard, the detail exposure times shown in Table VIII were found to be satisfactory while working with Autoscreen film for making halftone negatives from originals or normal contrast and for same size reproduction. These exposure times might differ slightly depending upon shop conditions and equipment used, but will be found very useful in making a start.

TABLE VIII

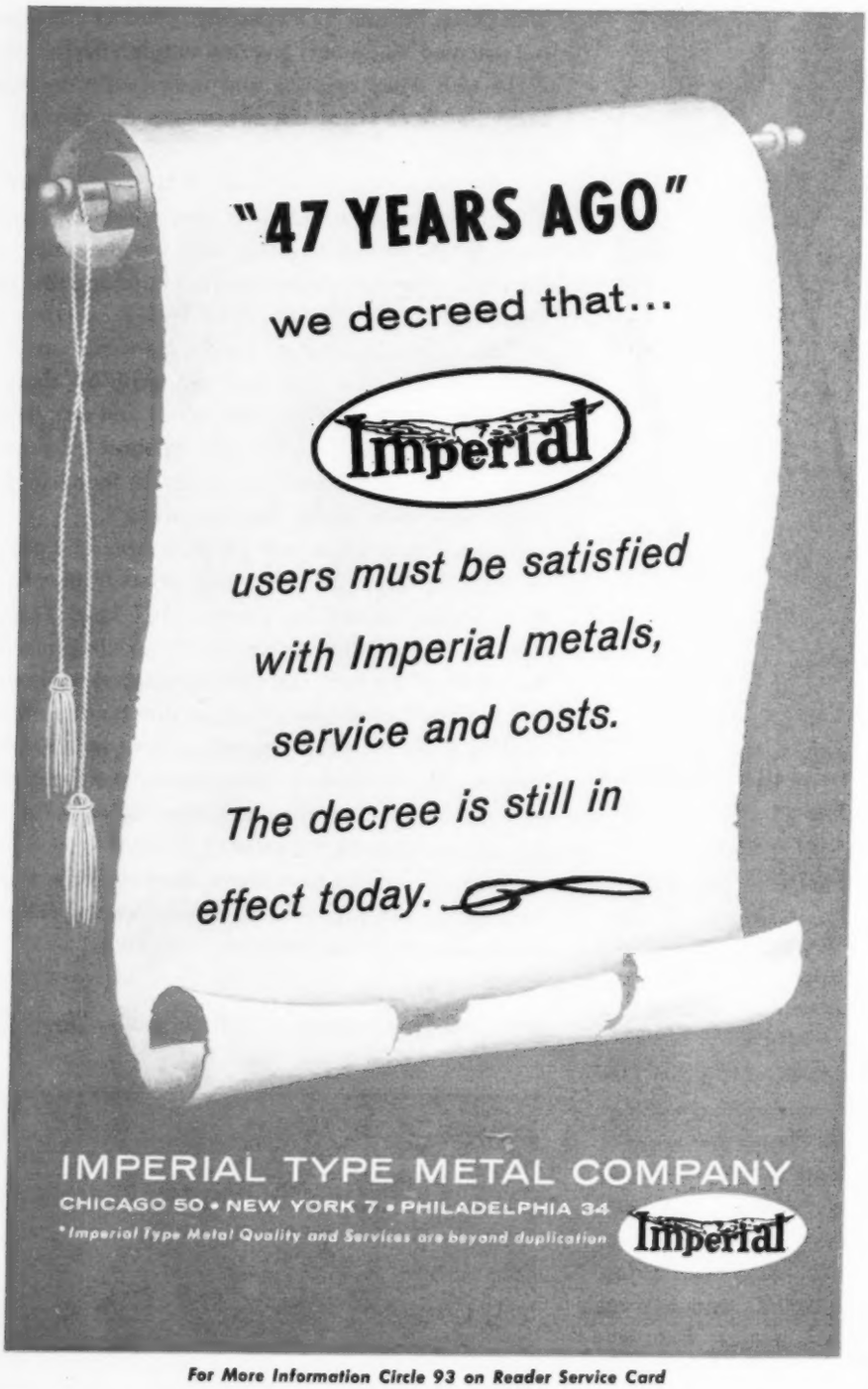
Light Source	*Exposure Time (seconds)*
Two 500 w., 3200 K. lamps at 40 in. apart and at angle of 45 deg.	27 at *f*.22
Two 35 amp. white flame arc lamps at same angle and distance	21 at *f*.32

After the detail exposures, the flash exposure is made with the yellow light. For this purpose a Kodak adjustable safelight filter, Wratten Series OA, and a 25w. bulb can be used. The lamp should be placed at a distance of 4-6 ft. from the camera back inside the darkroom. The placing of the yellow safelight lamp is arranged in the same way as in the case of using magenta contact screen. (For reference see Part III, Feb. PRINTING PRODUCTION.) As soon as the detail exposure is over, the camera vacuum back with the film on, is opened and the flash exposure is made. The recommended time of flash exposure for either of the above suggested detail exposures is about 10 to 15 sec.

Developing the Film

When both the detail and flash exposures have been made the film is developed in Kodalith A and B (equal parts) developer or any other lith type developer for 2¼ min. at 68 deg. F. The technique of developing the Autoscreen film is unique and must be followed very carefully if best results are desired. It is suggested that the film should be agitated during the first part of development with still development for the remaining time. For instance, if the development time is 2¼ min., then the film should be given agitation for 1½ min. following with still development for ¾ min. It is also recommended that fresh working developer should be used with each negative.

Once a negative has been made on Autoscreen film, we recommend that readers who are interested in producing halftones and knowing



For More Information Circle 93 on Reader Service Card

more about halftone photography, should compare this negative with halftone negatives made by other methods. On comparison it will be found that the highlight contrast in the screened image is higher and the shadow contrast lower. But readers should not forget that at times the customer would want a reproduction with good highlight separation from the shadows. This film has the capability of producing negative with excellent highlight contrast. Therefore, it is recommended that when readers compare the Autoscreen negative with the negatives made by other methods, they should look for 80% shadow and 10% highlight dots in the Autoscreen negative, for best printing results. In other words, negatives should be slightly flatter than the usual litho negatives.

In comparing Autoscreen film negatives with negatives produced by other methods, it has also been found that the detail recorded by Autoscreen film is sharper than with any other halftone process—sharper even than with the Kodak Magenta contact screen. There are two reasons for this: (1) Use of still development which improves the sharpness, and (2) Absence of any screen in the path of the image has a similar effect. In fact, over 500 lines per in. have actually been resolved with 150 line per in. on Autoscreen film, although many people have questioned whether such a thing is possible.

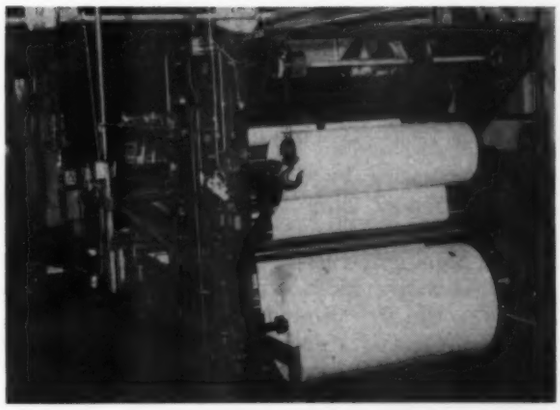
Other Autoscreen Utilities

Besides making the halftone negatives automatically, Autoscreen film can be utilized for many other purposes. For instance, one can shoot type matter and illustrations together in one shot for one single page by simply placing them together on the copy board.

Then the film is also useful for making screened positives from continuous tone negatives either by contact or in the camera. And the positive transparencies made by a two times enlargement from Autoscreen ortho negatives are excellent for making silk screen stencils with Kodak Ektagraph film.

Autoscreen film is especially designed for users of Multilith, Davidson and other offset duplicators. It is available only in 133 line screen.

(Series Completed)



Miehle's web sheet feeder for automatically sheeting roll stock to size before registration, is installed on a rotary perfector press at Kingsport Press, Kingsport, Tenn.

Miehle Feeder Sheets Roll Fed Stock

A web sheet feeder for the Miehle 61 and 76 rotary presses automatically sheets roll stock to size before registration, reports Miehle Company, Div. Miehle-Goss-Dexter, Inc. The new unit, which is claimed to enable the large press printer to use roll stock, is the result of a coordinated research and development program among the various M-G-D divisions.

With the web sheet feeder, roll stock is automatically sheeted to size before registration, continuing on for stream feeding through the regular sheet-fed press in the normal manner. The feeder can be furnished in combination with either a Christensen or Dexter feeder for backing up the sheets, or for other jobs for which roll stock is not used, states sponsor.

In-plant testing of the feeder was carried on at Kingsport Press, Kingsport, Tenn. Circle No. 253 on Reader Service Card.

Summer Courses in Printing Offered by Carnegie Tech

Practically all phases of printing will be covered in the six-week summer school courses at Carnegie Institute of Technology, School of Printing Management, Pittsburgh, June 22 to August 1. The six-week session is under the direction of Kenneth R. Burchard, Assistant Dean of the School of Printing Management.

According to Professor Burchard, these summer printing courses are identical to those given in the regular academic year. They carry college credit and enable teachers of printing, employees of commercial printing plants, and others interested in the Graphic Arts to refresh their knowledge and acquire new skills and techniques. Courses in planning, design, estimating, cost accounting, sales and management will be offered as well as skill-development courses in typography, machine composition, presswork, and photolithography.

Applications and more information may be obtained from the Director of Summer Sessions, Carnegie Institute of Technology, Pittsburgh 13, Pennsylvania.

Printing Week in May

A Printing Week in May will be observed by members of the Graphic Arts industry in the Philippine Islands, according to Gerald L. Flood, chairman, Intl. Printing Week. It is the first such celebration in many years and plans were made only after reading of the widespread observance in the United States, reports Manuel D. Benipayo, Benipayo Press & Photo-Engraving, Philippine Islands.

Turn to Page 92

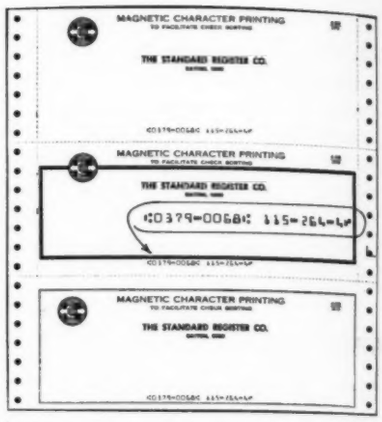
Many readers of Printing Production will get their first glimpse this month of a magazine page printed from an experimental Du Pont photopolymer plate. It will be found on page 92 and serves to introduce a new Printing Production feature, Graphic Views.

Magnetic Printing by Standard Register

Magnetic ink character printing, approved as standard for automatic check processing by the American Bankers Assoc., has been made available on a production run basis by the Standard Register Co. The new code characters, both digits and symbols, can be printed on continuous form and Zipset checks, paper and tab card types, in accordance with ABA specifications as to design and tolerances.

The adoption of magnetic ink character recognition by ABA will enable banks to sort and post checks automatically through use of electronic equipment. The digits and symbols, which are printed at the bottom of each check, have been designed to be read both visually and by a variety of equipment now being produced or developed.

Inks used for this printing process are said to possess the capability of being magnetized. When magnetized, each character will provide a specific impulse for the reading equipment.



Magnetic ink character printing is available on a production run basis from Standard Register Co. The new code characters can be printed on continuous form and Zipset checks. Shown in the code are the ABA transit number and routing field; account number and transaction field, and amount field.

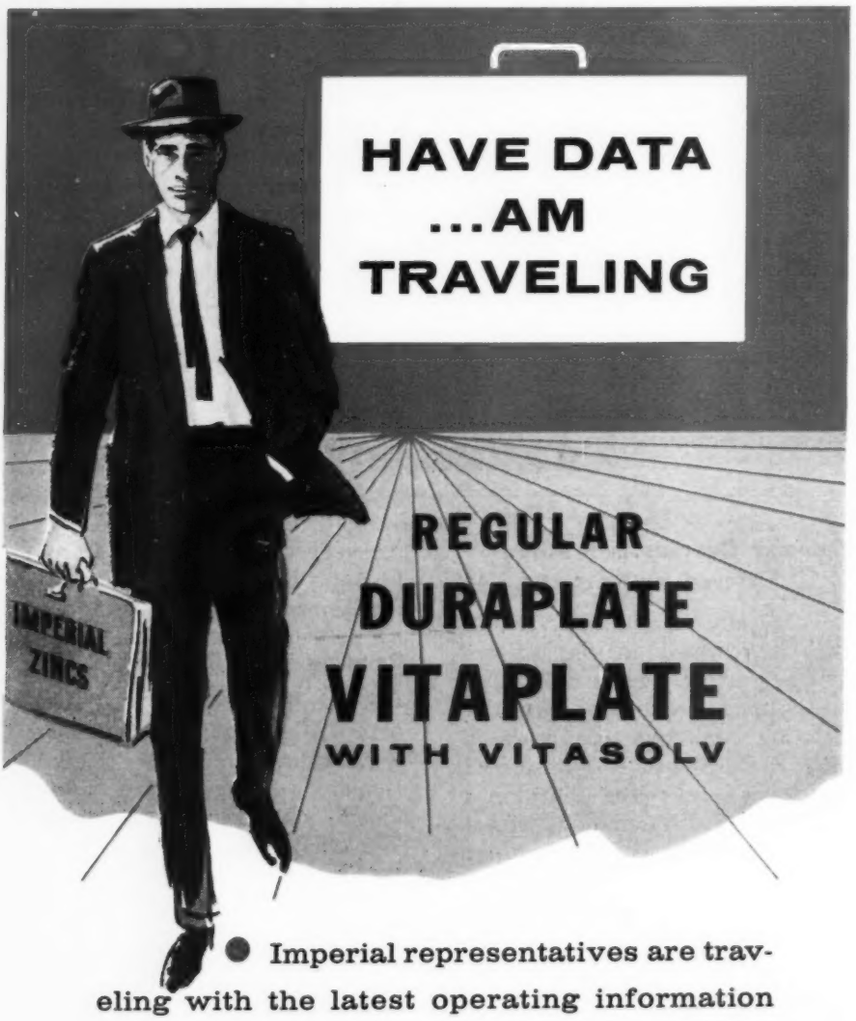
Checks to be coded with magnetic ink must be from 6 in. to 8¾ in. wide and from 2¾ in. to 3 2/3 in. long. Within these measurements, three fields of magnetic ink printing are provided for: ABA transit number and routing field, account number and transaction field, and amount field. The transit number and routing field and the account number can be preprinted by Standard Register. The transaction number and amount field will be postprinted by banks processing the checks.

Color Control Session at RIT

A session on color control is being planned in connection with the ninth annual Seminar on Quality Control for the Graphic Arts industries, to be held at Rochester Institute of Technology, Rochester, N. Y., June 22-27.

The color control seminar will emphasize practical operating methods used in printing plants and consideration will be given to problems of lighting, color blindness, color aptitude, and ink control. Color difference meters will be demonstrated along with an explanation of the use of densitometers and color standards.

More information may be obtained from Harold Kentner, Coordinator Extended Service, Rochester Institute of Technology, 65 Plymouth Ave., S., Rochester 8, N. Y.



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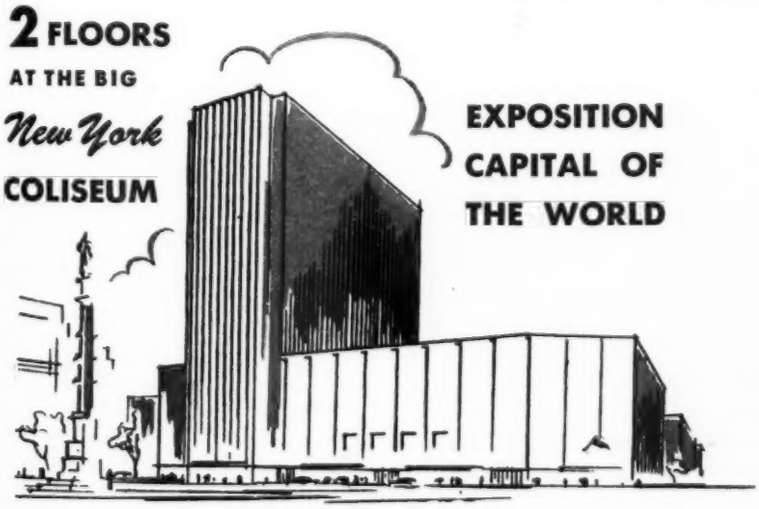
The Industry Convenes and Exhibits In New York, September, at

17th EDUCATIONAL Graphic Arts EXPOSITION

SEPTEMBER 6th to 12th, 1959

Sept.		
5- 9	International Assn. of Printing House Craftsmen, Inc.	Hotel Statler
6-10	Printing Industry of America, Inc.	Hotel Waldorf-Astoria
7-10	International Assn. of Electrotypers & Stereotypers, Inc.	Hotel Biltmore
6-12	Label Manufacturers National Assn., Inc.	Hotel Park Sheraton
5- 7	International Graphic Arts Education Assn., Inc.	Columbia University
8	Education Council of the Graphic Arts Industry, Inc.	Hotel Waldorf-Astoria
8- 9	National Printing Equipment Assn., Inc.	Hotel Waldorf-Astoria
9-12	International Typographic Composition Assn., Inc.	Hotel Park Sheraton
5- 9	International Printers Supply Salesmen's Guild	Hotel Statler
4- 5	Graphic Arts Trade Assn. Executives	Hotel Waldorf-Astoria
8-12	Advertising Typographers Assn. of America, Inc.	Hotel Plaza

2 FLOORS AT THE BIG *New York* COLISEUM



EXPOSITION CAPITAL OF THE WORLD

The Research and Engineering Council of the Graphic Arts Industry will arrange a one-day meeting of its members during the Exposition.

Exposition under Management of

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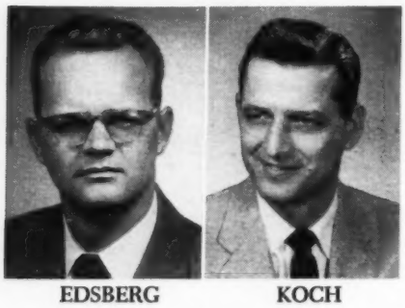
PCM Forms Research Department—Paper Converting Machine Co. has formed a new research and development department which will direct the development of paper converting machines and new principles applied to specific customer problems. The department will be headed by Charles Sanders.

Todd Research Managers—Appointments of Robert L. Edsberg and Richard W. Koch to managerial posts in research and development for the Todd Company, Div. of



EDSBERG KOCH

Burroughs Corp., have been reported by Richard E. Maxwell, research and development director. Edsberg was appointed manager of chemistry research and Koch was named manager of engineering research.

Ink Conference to Draw Delegates from 15 Countries—Delegates from 15 nations, including Hungary and Russia, will attend the Fifth Intl. Conference of Printing Research Institutes, to be held at Lehigh University, Bethlehem, Pa., June 8-13, it was announced by Dr. Albert C. Zettlemoyer, chairman. The host for the meetings will be the National Printing Ink Research Institute at Lehigh directed by Zettlemoyer.

Color and printing inks will be the theme of over 40 technical papers to be presented during the conference. Norman S. Cassel, vice president of research and development, Interchemical Corporation, will deliver the keynote address entitled, *Printing Ink Technology in the Space Age.*

In addition to the sessions to be held on Lehigh's campus, where NPIRI maintains its research headquarters, delegates will make tours to the New York *Times* and the American Newspaper Publishers Assoc.'s research laboratories and Mack Printing Co., both in Easton, Pa.

Oxford Technical and Research Appointments—The promotion of Dr. William Hoge to director of technical specialties development, Oxford Paper Co., was announced recently. As head of this new department, Hoge will report to Harold M. Annis, vice president of research and development. Dr. Victor Mattson has been named group leader for technical specialties research. Also announced was the promotion of Bernhard Mayer to assistant director of research.

Litho Research Progress Reported by LTF

Interesting research progress reports were made recently by staff members of the Lithographic Technical Foundation at a research committee meeting. The meeting was held at The Towers, Conrad Hilton Hotel, Chicago, Mar. 11-12.

Staff members discussed research objectives designed to improve the lithographic printing process. Those presenting reports were: George W. Jorgensen, Frank Preucil, Charles Gramlich, Charles H. Borchers, Everett Bernstein, William Boehm and Byrne Heninger, all actively engaged in LTF research.

Platemaking Studies

Jorgensen presented three reports. The first of these was related to development of an instrument for measuring or predicting three factors affecting the print quality of halftone images. Three separate computer circuits are used to indicate how grainy halftones will appear to an observer; the second circuit indicates how sharp the halftone will appear, and the third circuit predicts how the tone values of the halftone will appear to an observer. This instrument primarily is intended for making comparison type measurements for quality control work. It will be of help to the pressman in maintaining a consistent quality level throughout the press run.

A number of studies were reported on the following subjects: Image sharpness, resolution, survey of color measurement, press Inkometer, new optical scanner and technical service.

Improvement of the non-printing areas of plates, stated Gramlich, is of continuing interest to LTF. Concurrently, with studies of etches, preliminary studies on improving water receptivity of zinc by anodizing its surface have been started.

Gramlich also reported that studies of the image areas of plates have included improvements of the Nicohol treatment. He said that some difficulty had been encountered in plants using the Nicohol treatment for deep-etch aluminum plates. These consisted of brown discolorations of the coating and penetration of the stencil. Discoloration was due to evaporation of alcohol which increased concentration of the nirtic acid and water. Replacement of the alcohol with a slower drying solvent (ethylene glycol monoethyl ether) eliminated the trouble.

Ink and Related Studies

Jointly, Borchers and Boehm discussed ink transfer studies during 1958. These dealt with exploratory research into the mechanism by which ink transfers to paper. Experimental data indicate that the differences between coated and uncoated papers are sufficiently large to require different research techniques to study ink transfer to their surfaces.

In three-way joint reports, Bernstein, Borchers and Boehm reported on studies of tinting and ink emulsification and on LTF Pick Tester developments.

The critical press variables causing tinting conditions have not yet

been identified. It is indicated by past work that surface active materials in paper are probable factors. A study of marginal press sheets may be necessary to get reproducible press tests giving tinting.

During 1958 a new printing element for the Pick Tester was built to test paper for moisture sensitivity. The test so far looks quite promising for uncoated papers.

Study of Ink and Paper Gloss

Borchers discussed further study of the gloss of offset ink and its relationship to the gloss and absorptivity of paper. Ink gloss is often thought of as being closely related to the ability of paper to hold the ink on its surface. Research has shown that, in general, poor correlation exists between the gloss of offset ink and the ink absorptivity of paper. Better correlation was found between ink gloss and the gloss of paper being printed. The influence of ink film thickness on gloss was studied along with the effect of wet trapping on a two color press.

Tests on scuff resistant inks were conducted. Main object of the work was to compare the degree of scuff resistance of each ink on various papers. Significant differences were found. The greatest factor determining rub resistance was the ink itself. Such factors as paper roughness, absorbency, amount of ink run, ink drying time and pigment concentration did not influence the results to the degree that had been expected. The study was limited, however, by a number of things including a small number of samples, use of only one type of rub tester, and no study of the effect of waxing, varnishing, or bindery operations.

Influence of Paper on Color

The influence of paper differences on the appearance of printed color reproduction was discussed by Preucil. Small differences in paper color create considerable hue and purity shift of halftone tints. A binary color system is suggested to improve tertiary color gamut on uncoated papers.

Preucil also discussed tests of new materials such as filters, pulsed Xenon light, photothermographic films, etc.

25 Scientific Reports Readied for TAGA

Reports of scientific investigations into important Graphic Arts technical subjects will be presented to the forthcoming Technical Assoc. of the Graphic Arts conference. This meeting will be held at Hotel Manger, Rochester, N. Y., on June 15-17.

It has been announced by President Frank Preucil that 25 reports on new printing processes, papers, plates, presswork, color and other reproduction subjects will be presented.

The program will carry with it a somewhat international aspect. Aside from the dominance of scientific American speakers on the program, papers will be presented by 10 overseas researchers. Representatives will be present from England, Finland, Germany, Holland and Sweden, most of whom are well known in the United States.

Report on Processes, Methods

The variety of papers to be presented is quite comprehensive. Much effort has been expended by the speakers to report refinements and/or improvements in the various processes and methods employed in the printing industry.

A team of research men from Eastman Kodak Co. will present reports on studies about methods for improved photomechanical reproduction. Discussions will be devoted to relation of contact screen to picture quality, balanced process color halftone separations, uses of negative color materials, and scanner for making photographic masks. Those participating from Kodak will be R. E. Maurer, F. R. Clapper, L. W. Gosling, D. L. Howe and J. H. Worth.

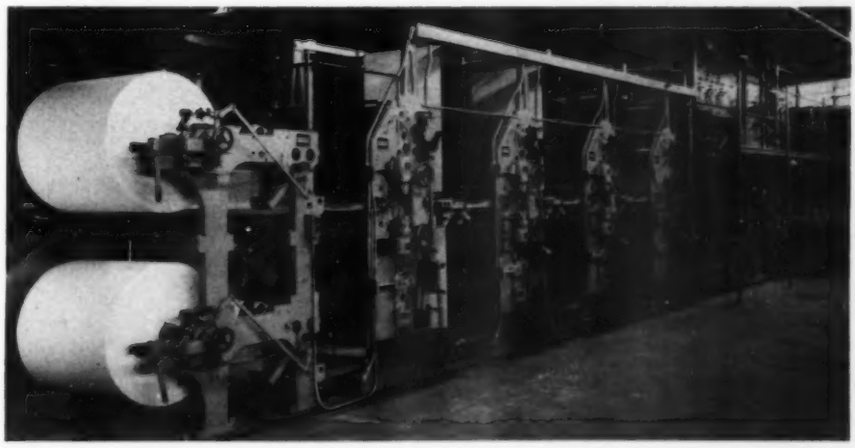
Warren L. Rhodes, head, RIT's Graphic Arts Research Dept., will discuss color error in sheetfed-lithography. Harvey George of Gravure Research, Inc., will present a paper on web tension research.

Ink Subjects on Program

Two researchers from ANPA Research Institute, A. E. Yelmgren and J. T. McLane, respectively, will report on investigative work on techniques for measuring ink transfer at high speed and analysis of ROP color based on equivalent neutral density considerations. Also, two members of LTF's research staff will report on current studies of ink transfer in lithography.

One of the interesting papers will be the report on a bench test for predicting the effect of fountain solution on pick and curl of offset papers by N. L. Beckman, Kimberly-Clark Corp. The Guth printing plate will be reported upon by Erik R. Nielson of Armour Research Foundation.

Information about conference may be secured from Technical Assoc. of the Graphic Arts, P. O. Box 3064, Rochester 14, N. Y.



Brooklyn Firm Installs Web Offset Press—Mercury Lithographing Corp., Brooklyn, N. Y., has installed a new high speed Hantscho perfecting web offset press, which will print 32 page signatures in four colors on both sides at speeds up to 25,000 signatures per hr. The press will be used for book and magazine printing. According to Mercury, the acquisition is the latest step in the firm's constant expansion and upgrading in web offset production.

Zinc Industry Will Study Litho Plates

A new American Zinc Institute and zinc industry sponsored project aimed at extending the service life of zinc lithographic printing plates and developing surface treatments that will permit pre-sensitization, has been announced by Dr. Schrade F. Radtke, director, AZI's Expanded Research Program. The project will be the first industry-wide cooperatively sponsored research program for this phase of the zinc industry.

Commissioned by AZI to begin April 1st, the new research project is being conducted at Lithographic Technical Foundation, New York City under the direction of William H. Webber, LTF executive director, and under the immediate supervision of Michael H. Bruno, LTF research director in Chicago. The project is part of the recently initiated Expanded Research Program sponsored by zinc and lead producing companies in the United States, Canada, Great Britain, Peru, and Australia, stated Radtke.

Because zinc plates can be consistently, quickly and easily treated in fine detail, large quantities of the metal have served the printing trade for decades to produce the halftones from which illustrations and photographs are made for books and other printed matter, Radtke said.

To extend the service life of zinc printing plates for long runs, the LTF researchers will explore ways and means of making non-printing background areas more water-receptive, seek new zinc alloys to improve creep characteristics, and new lubricants for rolling zinc. The project will test zinc plates with fine grain, and will investigate surface treatments to permit coating with a light-sensitive material necessary to produce a presensitized zinc lithographic plate.

Type Specimens Displayed In Plastic Coated Folder

A type display book which opens into a large chart but can be folded easily for pocket size use has been prepared by Monsen Typographers, Inc., Chicago and Los Angeles. One line showings of more than 700 type faces, ranging from agate to 72 pt., are included. The faces are listed in alphabetical order and character count for foundry type and machine faces is given with each body size.

The book is printed on a broadside measuring 28 in. by 21 in. which folds into a 32 page booklet 3½ in. by 10½ in. This fold enables viewing the type faces page by page, without unfolding the broadside.

It is printed on Texoprint stock, a plastic coated and impregnated paper developed by Kimberly-Clark Corp. Texoprint can be cleaned with a damp cloth.

Copies may be obtained from Monsen Typographers, Inc., 22 E. Illinois St., Chicago, or 960 W. 12th St., Los Angeles.

Monsen's type display book is printed on a broadside measuring 28 in. by 21 in. which folds into a 32 page pocket size booklet. Included are one line showings of more than 700 type faces.

ANPA Research Institute Strengthened

Several actions were taken at the closing session of the April American Newspaper Publishers Assoc. convention, Waldorf Astoria hotel, New York, to strengthen operation of the ANPA Research Institute. Consolidation of the Research Institute and the Mechanical Department was approved. (Date is to be decided later.)

The consolidation follows the recommendations made some time ago by the Institute's research laboratory evaluation committee. Otto Silha, vice president and general manager, Minneapolis (Minn.) *Star* and *Tribune*, was chairman of the committee. (See p. 36, Feb. 1959 PRINTING PRODUCTION.)

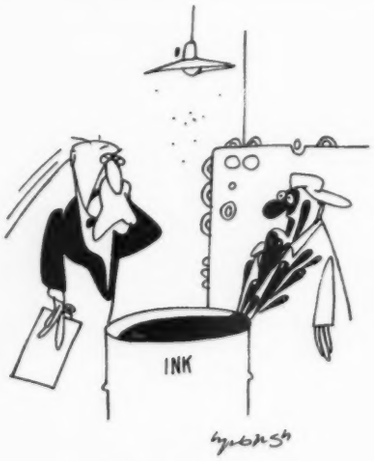
The Mechanical Department which is to become a section of the Institute primarily is concerned with statistical and information services to ANPA member papers, as well as supervision of the annual mechanical conference.

Offices of the Research Institute will be moved about the first of August to New York in the same building with ANPA headquarters at 750 Third Ave. The Easton (Pa.) Research Laboratories will continue under Institute supervision.

The Institute will be made into an all-embracing unit and its financial support, approx. $350 thousand per year, will be allocated from regular dues of ANPA members.

Incoming president of the Research Institute, James S. Copley of The Copley Press, Inc., La Jolla, Calif., announced that the Institute's managing director, Cyrus L. MacKinnon, has resigned for personal reasons and because he prefers to live in Chicago. The management firm of Booz, Allen & Hamilton, management consultants, has been retained to nominate a replacement.

Institute President Lisle Baker, jr., of the Louisville (Ky.) *Courier-Journal* and *Times*, said the research program at the laboratories in Easton, Pa. will be strengthened. More projects will be aimed at basic improvements in production costs as well as the shortening of time between editor and reader. Cooperation with equipment manufacturers and suppliers engaged in technological research is being stressed.



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EQUIPMENT & SUPPLIES

If you wish additional information concerning equipment, supplies, and/or technical literature, please make your request on *Printing Production's* Reader Service Card to be found in this issue.

RUBBER PLATES FOR TESTING EFFECTS OF HALFTONE SCREENS

A set of three rubber printing plates designed for testing the printability of different halftone and Benday screen tints on a flexographic press has been developed by Mosstype Corporation. Each plate is composed of 10 squares representing 10 different tonal values, graduated from 10% to 100% of a solid tint. One plate is 65 line screen, another 75 line, and the third 85 line.

The plates are intended for use in testing the effect of different screens and tints in different colors on various stocks. They are made of both natural and synthetic rubber and are available in plainback, stickyback, precurved or brassback construction. Each plate measures 6½ in. by 3¾ in. Circle No. 263 on Reader Service Card.

PACK INSPECTOR NOW STANDARD ON SADDLE GATHERING MACHINE

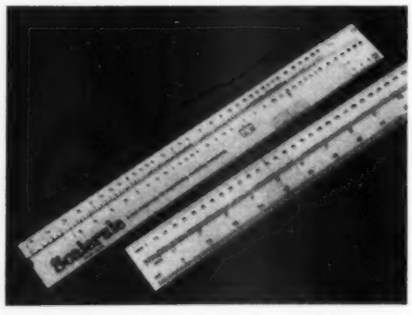
Macey Company, Sub. Harris-Intertype Corp., has designed a new type pack inspector that is a standard feature on its saddle gathering machine. The device is said to eliminate the need for constant watching on the operator's part to detect continued rejection of incompleted books.

When an incomplete book is detected on the device, a memory unit is activated which in turn stops the stitcher from operating as that particular book passes the stitcher and ejects to special tray on operator's side of the machine, reports Macey. Thus incomplete books can be decollated without having to remove staples and the sections returned to the feeders.

Also, if three consecutive incomplete books are detected, the memory unit stops the whole operation for the operator to make any needed adjustments either on the machine or with the stock, states sponsor. This is said to put the saddle gatherer back in operation sooner, eliminating excessive spoilage. Circle No. 281 on Reader Service Card.

REDESIGNED PLASTIC SLIDE RULE

Improvements in design have been announced by Fairgate Rule Co. for its Scalerule 12 in. plastic slide rule for use in the Graphic Arts industry. The new redesigned rule is said to feature easy to read figures, scales triple checked for accuracy and a snug fitting slide with precision hair line. Scalerule proportions in picas, inches and square inches; measures in eight different units and transposes from one to the other. It is furnished with instructions and is simple to operate, states sponsor. Circle No. 255 on Reader Service Card.



DIRECT POSITIVE CLEAR FILM FOR MAKING DUPLICATE NEGATIVES

Cronar direct positive clear film recommended for making duplicate line and halftone negatives, including multiple overlays, has been developed by E. I. du Pont de Nemours & Co. The film is a high contrast, contact speed polyester base (0.004 in.) film without matte finish which will produce positive from positive and negative from negative reproductions in single exposure and development steps. It may be handled under subdued lighting during exposure operations. Exposures are made through yellow or orange filter sheeting.

The film may also be used for direct positive black line reproductions from original drawings, plans, and maps where a clear film copy is desired, claims Du Pont. It is said to be suitable for long lasting intermediates and second originals used in the production of multiple copies via blueprint and direct processes. Circle No. 257 on Reader Service Card.

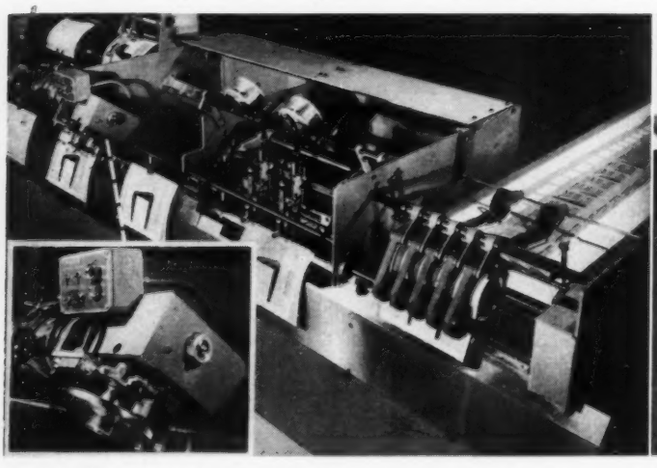
SENATOR PAPER CUTTERS IN STANDARD AND ELECTRONIC MODELS

American Type Founders Co. has been appointed exclusive United States distributors for the German-made Senator paper cutters. Three Senator cutters are available in 32¼ in., 41¾ in. and 52 in. widths, both as standard models and electronic spacer models.

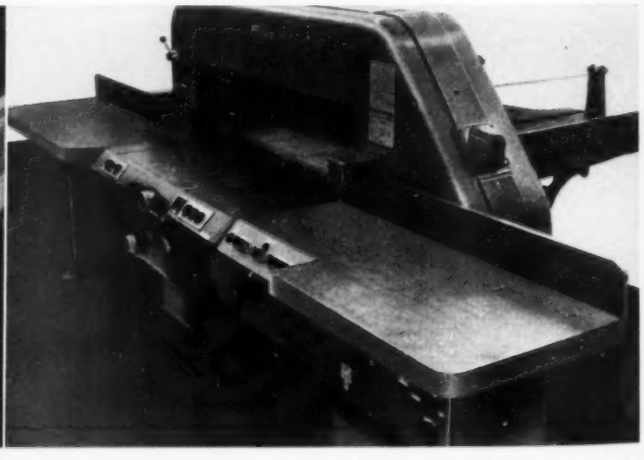
All models are equipped with hydraulic clamping said to be variable by slight adjustment of a hand lever located on the front of the machine. Motor operated three piece split back gauge is also standard on the cutters. Micro-scale adjustments can set the gauge accurately up to 0.001 in., permitting fine settings for precision cutting, states ATF. Micrometer gauge is graduated to 0.004 in.

It is reported an electro-magnetic clutch operates the knife bar independently of the clamp for complete safety. The cutters are also equipped with a photo cell safety light beam across the front of the knife to stop the machine if the beam is broken while the knife is in motion. A slipping clutch overload protection device is built into the machine, with an automatic resetting feature.

Spacing on the electronic spacer cutter is reported to be accurate to within 0.002 in. The back gauge is electronically controlled by signals which are push button recorded on magnetic tape. Four different sequences can be recorded on the tape. All operations, such as changing channels, recording, repeating, correcting, or cancelling, are set with finger tip control, claims ATF. Circle No. 282 on Reader Service Card.



Above is the new pack inspector which is now standard on the Macey saddle gathering machine. The device is reported to detect incompleted books and stop the machine from operating when these books pass the stitcher.

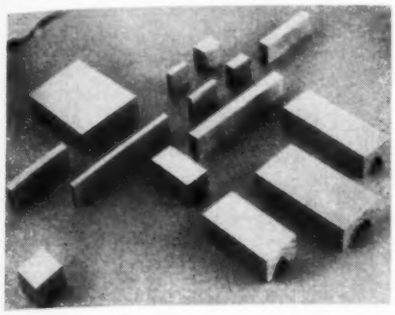


The Senator paper cutter, now being handled in the United States by American Type Founders Co., is shown above. Three Senator cutters are available in 32¼ in., 41¾ in. and 52 in. widths in standard and electronic models.

LIGHT METAL BASE MATERIAL FOR MOUNTING PLATES, ELECTROTYPES

Light metal base material for mounting of plates and electrotypes, manufactured by Typefoundry Amsterdam of the Netherlands, is available from Amsterdam Continental Types & Graphic Equipment, Inc. The material is made of cold extruded duraluminum and is said to be light in weight, accurate, stainless and of maximum hardness.

It is available in a wide variety of pica sizes which can be put together quickly



as a base for any size plate, and then redistributed for storage. The assembled base material is locked up in the form and the plate is mounted with double face tape or other material.

Available in widths from ½ to 12 ems, and in lengths from 4 to 60 ems, the plate base is stocked in three standard heights; 0.894 in. for Fairchild Scan-a-plates; 0.850 in. for copper and zinc engravings, and 0.761 in. for electrotypes. Circle No. 264 on Reader Service Card.

TRIMMER ATTACHED TO STITCHER MAKES FRONT CUTS ON SIGNATURES

A new McCain trimmer that can be attached to a Christensen gang stitcher or other stitchers to automatically make the front or face cut in ganged up signatures is available from Dexter Company, Div. Miehle-Goss-Dexter, Inc. Known as the McCain automatic front cut trimmer, it has a trim range from 3 in. by 12 in. to 14 in. by 39 in. with thicknesses to ⅜ in.

According to sponsor, only one adjustment is required to change the back depth, and infeed side guides are quickly adjusted for signature length. The work is automatically delivered from the stitcher conveyor, backbone forward, and a chain infeed brings it forward to be registered against the back stops. A 15 in. flattening plate removes excess air from the signature; then the clamp comes down to hold the books firmly throughout the cutting cycle, reports Dexter.

A single motor operates both stitcher and trimmer synchronously. It is claimed a two speed drive can run the trimmer at half speed when the stitcher is set for double stroking. Circle No. 284 on Reader Service Card.

FURNIVAL LINE OF PAPER CUTTERS TO BE HANDLED BY U.S. FIRM

Central States Printing Equipment Co. has been appointed United States distributor for the complete line of Furnival British-made paper cutters. The line consists of 16 models in sizes 35 in., 42 in., 48 in., 52 in., 64 in., and the Furnival Giant models in sizes 75 in., 85 in., 100 in., and 120 in. All cutters are push button controlled.

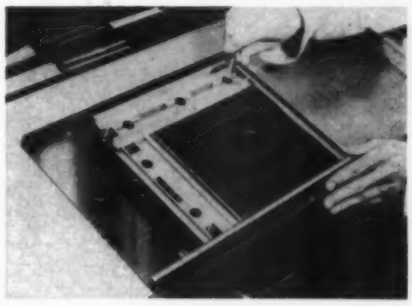
The electronic spacer models, available from 42 in. to 120 in., have a sequence bar carrier accommodating six bars and changeover from one bar to another is made by turning the carrier. It is reported the cutters provide variable spacing and fine trim cuts can be set in any sequence.

When the cutting sequence is finished the back gauge returns automatically to any pre-determined starting position, states sponsor. The forward and backward motion of the back gauge is controlled by variable limit switches. The clamping arrangement is said to include a hydraulic unit which provides adjustable pressure for various kinds of stock.

Furnival cutters up to and including the 64 in. size may be obtained without the electronic spacer. A power back gauge is standard on all cutters from 42 in. to 120 in. and is available as optional equipment on the 35 in. model. The 35 in. model may be obtained with either hydraulic clamping or spring clamping, and with automatic spacer. Circle No. 283 on Reader Service Card.

NEW MAKEUP AND LOCKUP GALLEY ENABLES CHECK OF MADEUP PAGES

American Wood Type Mfg. Co. has been appointed exclusive United States distributor for the new Cornerstone makeup and lockup galley, which enables pages to be locked under pressure with quoins and key. This is said to allow every page

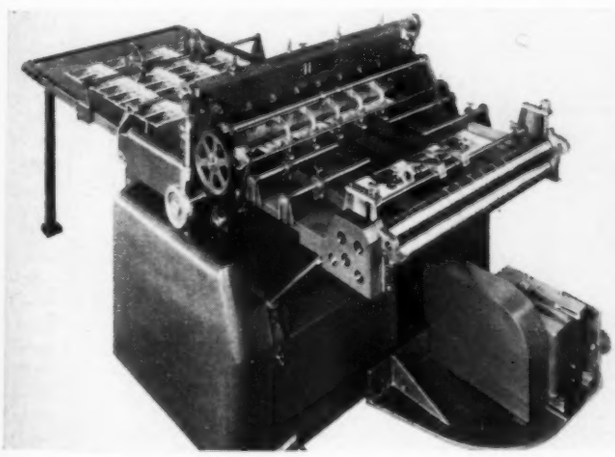


to be checked for true size. Multiple proofs may be produced without disturbing the accuracy of the form, states sponsor.

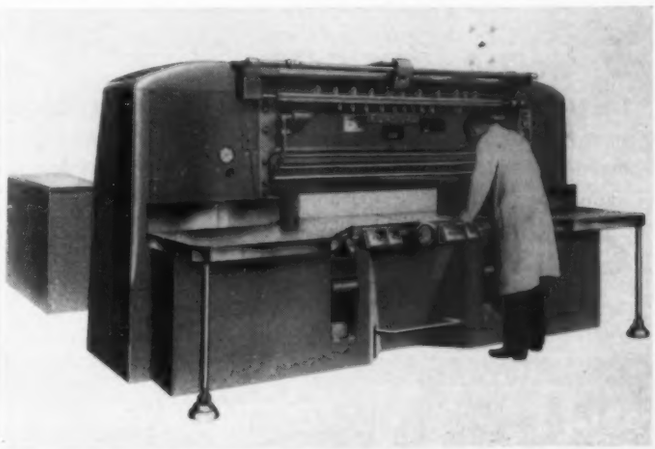
Bottom plate of the galley is made of stainless steel and is claimed to be absolutely flat so that discrepancies in the form show up immediately. Cornerstone galley is equipped with a pressure bar which may be locked in four positions, according to the size of the form. It is furnished with two scales, calibrated in picas, on two adjacent sides of the galley so measurement may be taken both ways. Size of galley is 15¾ in. by 11½ in., with inside dimensions 15 in. by 10 in. Circle No. 267 on Reader Service Card.

LAMINATED PLASTIC PHOTO TRAYS

All sizes of Richard photo trays are made of laminated plastic material for maximum acid and stain resistance, it was announced by Richard Manufacturing Co. Features of the trays include glossy inside surface, rounded corners, and cross ribs in bottom for easy print pick up. Trays are available in sizes 8 in. by 10 in. to 20 in. by 24 in., including a 14 in. by 17 in. by 6 in. deep general purpose tray. All sizes are equipped with a molded pouring lip with the exception of the 18 in. by 22 in. and the 20 in. by 24 in. trays. Circle No. 256 on Reader Service Card.



The McCain automatic front cut trimmer, recently introduced by Dexter Company, is shown above. The trimmer can be attached to gang stitchers to automatically make the front or face cut on ganged up signatures.

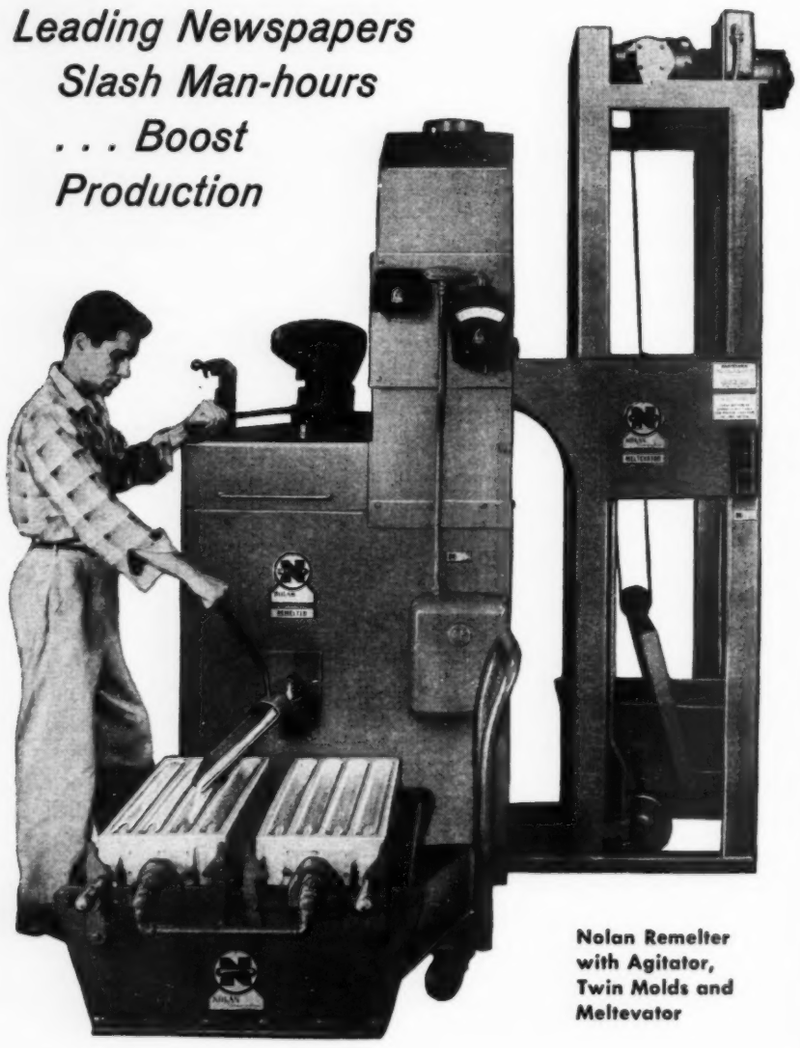


The Furnival paper cutter, to be handled in the United States by Central States Printing Equipment Co., is pictured above. The cutters are available in 16 models in sizes 35 in. through 64 in., and also in larger sizes through 120 in.

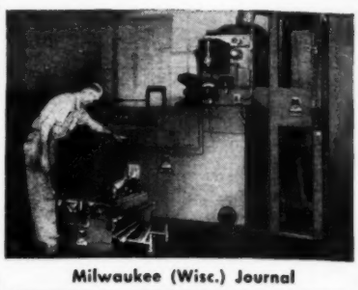
How to Remelt Metal the MODERN Way . . .

. . . the NOLAN Way!

Leading Newspapers Slash Man-hours . . . Boost Production

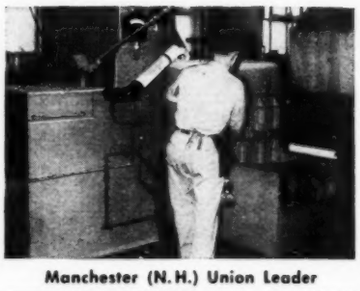


Nolan Remelter with Agitator, Twin Molds and Meltevator



Milwaukee (Wisc.) Journal

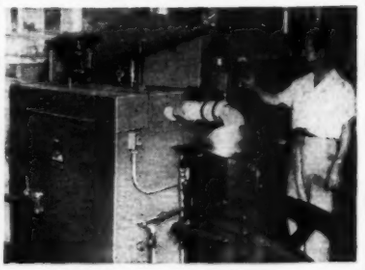
Seattle (Wash.) News



Manchester (N.H.) Union Leader

"Watchtower", Brooklyn, N.Y.

Sunbury (Penn.) Daily Item



Middleboro (Ky.) Daily News

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The Nolan Remelter starts saving for you from the day of installation. You save space . . . get greater working area. You save man-hours . . . reduce melting time 50% and slash loading time 95%. The Nolan Remelter saves money for you . . . saves metal . . .

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For More Information Circle 197 on Reader Service Card

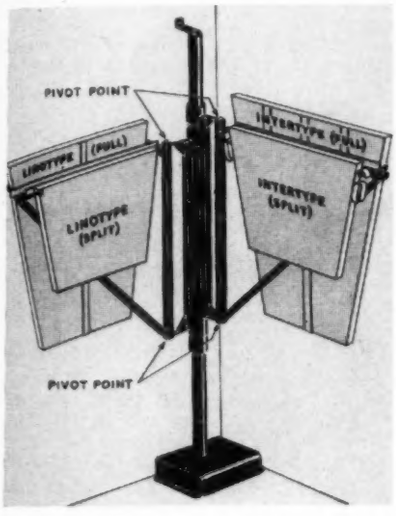
NEW SIZE PHILLIPSBURG INSERTER HANDLES UP TO 9 x 12 ENVELOPES

The Universal B size Phillipsburg inserter, which will handle envelopes from 3⅜ in. by 6½ in. to 9 in. by 12 in., has been introduced by Bell & Howell. Flaps up to 3 in. depth can be accommodated. The unit is available with two, four, six or eight stations, along with built in postage meter, punch card attachment, open feed station and postal indicia printer.

Also announced were changes in lengths and weights of various other inserter models. The changes are as follows: CU-2 Model, 8 ft. 9 in. long, 1600 lbs.; CU-4 Model, 9 ft. 5 in. long, 1900 lbs.; CU-6 Model, 11 ft. 10 in. long, 2200 lbs., and CU-8 Model, 13 ft. 11 in. long, 2500 lbs. All units utilize a conveyor type stacker, states sponsor. Circle No. 269 on Reader Service Card.

MAGAZINE RACK STORES BOTH INTERTYPE, LINOTYPE MAGAZINES

The Spacesaver magazine rack which features a four magazine capacity for Linotype or Intertype full or split magazines has been introduced by the Pate

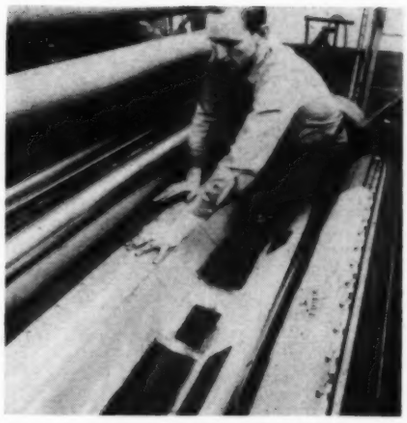


Company. The rack was invented by Frank E. White, publisher, Steele County Press, Finley, N. D., to solve the storage problem in smaller plants. It can be placed in a corner or against a wall, and it is equipped with swing out arms for ease in loading or unloading the racks. According to sponsor, ease of handling heavy, full magazines is another feature. Circle No. 260 on Reader Service Card.

REGISTER DEVICE ATTACHES TO CYLINDERS OF PRINTER SLOTTERS

The Dorr Rapi-Die register, a mechanism which can be installed in printing cylinders of printer slotter machines in use to improve die registration, has been reported by the Ink Division, J. M. Huber Corp. The attachment is said to provide a quick and accurate method of fastening pre-mounted dies without stapling.

Consisting of a square bar, called the Fixed Pin Bar, and a circular rod, called the Tightener Shaft, the attachment is fastened to the metal core of the cylinder after removal of a piece of wood lagging. Both the Fixed Pin Bar and the Tightener



Shaft are furnished with calibrated pins for accommodating grommets which are inserted in the die sheets.

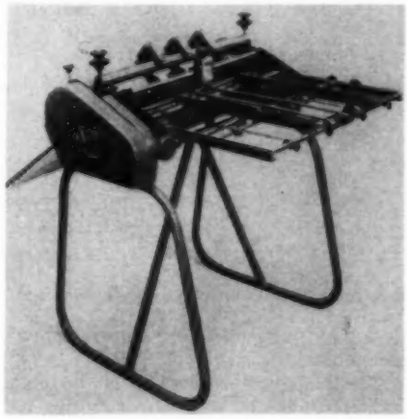
The grommeted holes are spaced in the sheets parallel to the series of holes at the other side of the sheet. This is said to enable the operator to keep the dies on one cylinder parallel to the dies on the other. Sponsor states once the dies have been properly mounted, the mounting sheets can be used on succeeding runs with assurance of register. Circle No. 279 on Reader Service Card.

AEROSOL PACKED HAND PROTECTION

A new type of hand protection designed to keep hands clean and germ free to prevent dirt, grease and other grime from clogging in pores has been developed by Acrolite Products, Inc. Called Protex-A-Hand, it is made with lanolin and glycerine and packaged in an aerosol can. It is applied to the area to be protected in a foam cream form and can be washed off at the end of the work period. Circle No. 265 on Reader Service Card.

BENCH MODEL PERFORATOR ALSO SCORES, SLITS IN ONE OPERATION

The Will Little Wonder automatic perforator, a bench model machine said to perforate, slit and score in one operation on sheets up to 24 in. wide, is available from Amsterdam Continental Types and Graphic Equipment, Inc. Sponsor claims



perforator will operate at speeds up to 12,000 sheets per hr.

Included in the features are: easy relocation and interchangeability of perforating, slitting and scoring heads; special roller device to smooth out slot perforations and enable level stacking, and a dash line perforating attachment, states Amsterdam.

Automatic feed is a bottom of the pile system, reported to permit continuous reloading without interruption of perforating action. Speed control is variable and can be adjusted for single sheet feeding. Machine is covered with a transparent, hinged plexiglass hood for safety. Circle No. 268 on Reader Service Card.

ELECTRIC INDUSTRIAL TRUCKS FEATURE MANEUVERABILITY

Electric powered 2000 lb. and 3000 lb. capacity industrial trucks said to feature a high degree of maneuverability have been announced by Elwell-Parker Electric Co. The trucks, designated the F-48T2 and F-48T3, are equipped with low height operator seats designed to keep the operator's head below the top of uprights.

According to sponsor, the trucks are easy to handle because of their short wheelbase of 36 in. It is said the trucks

can make a right angle turn in 58 in. wide aisles and can be used to angle stack in a 109¼ in. wide aisle. Features of the trucks are reported to include hydraulic lift and tilt, specially designed caster type steering axle, and worm gear drive reduction unit. Travel speeds up to 6 m.p.h. and lift speeds of 45 f.p.m. enable fast handling cycles, states Elwell-Parker. Circle No. 274 on Reader Service Card.

NEW ACCESSORIES FOR USE WITH SPEED-KLECT COLLATING MACHINE

Didde-Glaser, Inc. has expanded the line of accessories for its automatic high speed gathering and gluing equipment. All accessories are adaptable to Speed-Klect models in use. The line includes the following: multiple knife slitter trimmer, transfer vertical gluer, tabulating card collating kit, and a new stock loading platform.

The multiple knife slitter trimmer is said to enable difficult shingled forms, with intermixed long and short sheets, to be slit and/or trimmed and made ready for packaging as they are collated.

Transfer vertical gluer was specifically designed for gluing individual sheets or sections when the glue is perpendicular to the normal stub of the form, states sponsor. It is recommended for collating glued fold-over statement forms, ledger carbon forms, saddle back carbon forms,

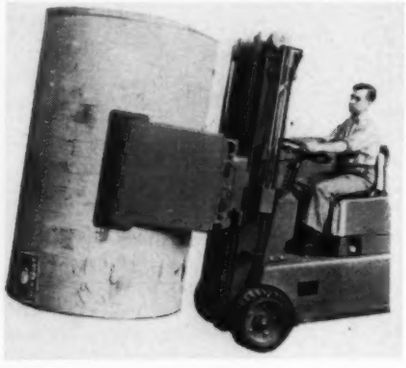
line-find statement forms, specialized machine accounting forms, secretarial sets and pegboard carbon forms.

The tabulating card collating kit can be used for gathering and gluing tab cards with die cut stubs into tab card one-time carbon forms. It may also be used for gathering and gluing forms of similar sizes and shapes.

According to Didde-Glaser, the new stock loading platform permits pre-loading the next stock load while the Speed-Klect machine is running. When the operating stack runs out, the table is lowered, the new stack from the stock loading platform is slid onto the table and the run is continued, without interruption. Circle No. 277 on Reader Service Card.

TWO ROLL CLAMP ATTACHMENTS FOR HANDLING PAPER ROLLS

Two rotating roll clamp attachments for the handling of paper rolls by lift trucks, available with either 180 deg. or 270 deg. rotation, have been announced by Clark Equipment Co. Model A-5 clamp has a capacity of 5000 lbs. and will handle 10 in. to 50 in. diam. rolls. Model A-8 (pictured) has a capacity of 6500 lbs. and will handle 10 in. to 60 in. rolls.



The clamps are said to feature high rotating torque, up to 39,000 in.-lbs. on the Model A-5 and 75,000 in.-lbs. on the Model A-8. According to sponsor, the clamps provide full hydraulic adjustment of arms for the full range of rolls handled. A single hydraulic control lever enables the operator to clamp any size roll without dismounting from the truck. Rotation speed of clamps is also adjustable. Clamps are furnished with contoured, self adjusting lift pads with permanent flint impregnated steel surfaces. Circle No. 272 on Reader Service Card.

NEW ERA ACQUIRES SALES RIGHTS FOR TOPFLIGHT ROTARY TAPE PRESSES

Sales rights for Topflight four color tape and label rotary printing presses have been acquired by New Era Manufacturing Co. The presses are equipped with interchangeable cylinders said to enable a choice of plate cylinder circumferences ranging from 8 in. to 24 in. Web widths up to 7 in. may be run.

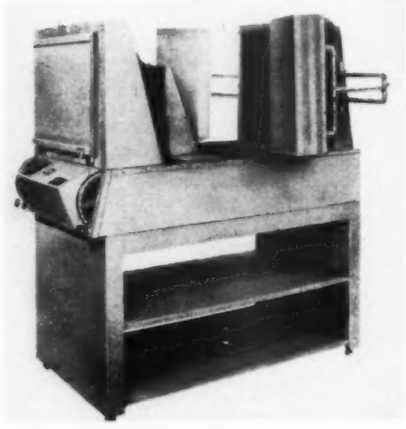
According to New Era, the presses can be used to print four colors in register at high speed and to laminate tape at the same time. They will also print three colors and die cut pressure sensitive and heat seal materials, film, paper, cloth, foil and other materials. It is said die cuts may be any shape. All printing units are mounted to a single impression cylinder. Topflight presses are adaptable for one roll or multi-roll order. Circle No. 278 on Reader Service Card.

COLORED SELF-ADHESIVE LABELS

Colored self adhesive labels mounted on sheets are available from Pee Cee Tape & Label Co. They are offered in sizes from 7/16 in. diam. through 2 in. diam. The labels can be obtained in a wide variety of colors, including canary, blue, green, red, black and white. Circle No. 276 on Reader Service Card.

IMPERIAL HORIZONTAL BED CAMERA FOR LITHOGRAPHIC PLATE USE

The Imperial horizontal bed camera with specially designed lens for lithographic use has been introduced by Lacey-Luci Products, Inc. The camera will make halftone negatives by the Magenta screen or Autoscreen methods in sizes to 14 in. by 18 in. It can also be used for line negatives, paperstats, photocopies and direct product halftones.



Camera is furnished with easy to reach hand controls and calibrated readings, reports sponsor. The lens is said to enable reductions and enlargements up to 325% in one shot. Camera is equipped with 17 in. by 22 in. film holder, pressure back and stayflat glass combination unit claimed to eliminate wrinkles from copy and provide sharp and clean reproductions. An interchangeable adapter is available for Xerographic work. Circle No. 258 on Reader Service Card.

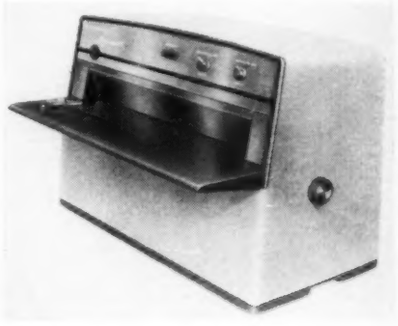
CERUTTI ROTOGRAVURE PRESS FOR CELLOPHANE, PAPER AND FOIL

A new Cerutti rotogravure press for high speed printing of cellophane, paper and foil has been reported by Parsons & Whittemore Graphic Corp. Known as the Model 14-R Rotopackager, it is said to feature different options in selection of type of side and length register controls, tension and impression controls, rewinds and unwinds, driers, printing units, doctor blades, etc.

Rotopackager press is available in six web widths, from 24 in. to 42 in., all with a repeat range from 14 in. to 30 in., and with any number of color units. Circle No. 261 on Reader Service Card.

GBC AUTOMATIC LAMINATOR ENCASES STOCK IN CLEAR FILM

General Binding Corp. announces the GBC automatic laminator which can be used to encase paper, card, board, or cover stock in clear plastic film. It is claimed the plastic material is pliable, tamper proof, impervious to dirt, grease and acids, stainproof, and will withstand wear and tear. Sponsor also states the film is stable and laminated material will lie flat.



The unit is reported to apply over 200 lbs. of pressure to assure good lamination, even on rough or torn surfaces. It will handle material 17 in. wide and has a 2000 ft. long film roll capacity. Equal distribution of heat during the lamination process is assured by three automatic thermostats, claims GBC. Circle No. 275 on Reader Service Card.

OFFSET CHECK IMPRINTER USES MAGNETIC OR CONVENTIONAL INKS

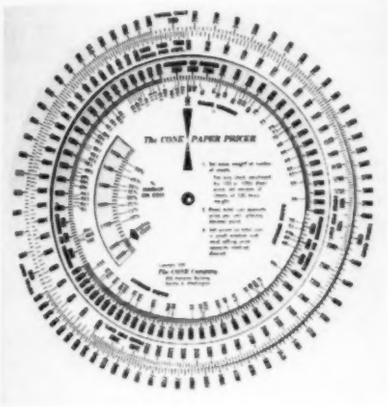
The Model 368 automatic offset check imprinter, which may be used with the new magnetic inks or conventional offset inks, has been announced by A. B. Dick Co. It is claimed the machine will imprint and collate 200 checks, 40 deposit slips and reorder forms for six customers in less than 3 min. Image area measures 10½ in. by 16½ in.

Machine is equipped with an electro mechanical program control unit said to automatically command the phases of the repetitive cycle of the check imprinting operation. During imprinting, the machine stacks checks ready for cutting and binding without further collating opera-

tions, in books of 25 each, states Dick. At the end of a cycle the machine hesitates long enough to permit insertion of deposit slips and reorder blanks. Circle No. 266 on Reader Service Card.

CALCULATING DEVICE DETERMINES COST OF PAPER IN PRINTING JOBS

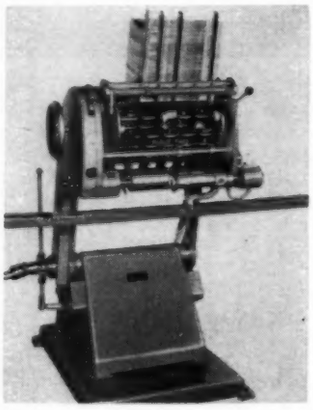
A calculating device which can be used in one setting to determine the cost of paper involved in a printing job has been introduced by the Cone Company. Required data for a setting consist of the number of sheets, the basis weight and the unit price.



Called the Paper Pricer, it is made of two finely calibrated Vinylite plastic dials. According to sponsor, errors and miscalculations are eliminated since all figures are shown and can quickly be checked and re-checked. Selling price of the paper at desired markup is also shown on the same dial. Circle No. 280 on Reader Service Card.

FEEDER ATTACHMENT ENABLES AUTOMATIC FEEDING ON STITCHERS

Printing Material Corp. has introduced the German made Hepp Feed-Master feeder which can be attached to Christensen, Sheridan or Brehmer stitchers for the automatic feeding of signatures, bulletins and pamphlets. Machine can be operated



with or without overlap and with a closed head or an open head. It is claimed to feature horizontal and vertical adjustment for good saddle delivery.

Unit is equipped with a double feeder system which enables speeds rated up to 15,000 per hr. Minimum size is 4 in. by 5¼ in. to 11¼ in. by 16 in. max. Sections

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- . . . *on press rollers* to prevent ink build-up . . .
- . . . anywhere you want instant lubrication on *conveyors, pulleys, valves, etc., and to eliminate sticking* . . .

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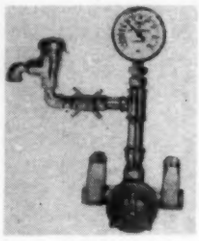
up to 64 pages can be fed. Unit can also be tilted away for manual feeding of oversized jobs. Circle No. 262 on Reader Service Card.

REDESIGNED WATER MIXER OFFERS CONVENIENT TEMPERATURE SETTING

Leedal, Incorporated reports that its thermostatic water mixer has been redesigned to include a thermometer with an accessible recalibration screw. This is claimed to allow readjustment of the indicator, which is sometimes off due to rough handling in transit. The unit includes a mixer, volume control vacuum breaker and ½ in. inlets and outlets. It features automatic blending of hot and cold water with accuracy of ±½ deg. F. in range of 60 deg. to 135 deg., states Leedal. It is also said the mixer maintains its temperature setting regardless of fluctuations in the supply water pressure or temperature. Circle No. 270 on Reader Service Card.



FILM OF GRAPHITE LUBRICANT IS SPRAYED UNDER PRESSURE

An extremely fine graphite, called dfg-123, is packed in cans under aerosol pressure. The graphite is released from the container by finger pressure on the nozzle.

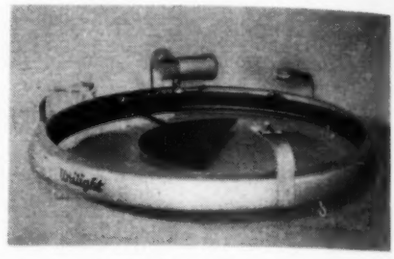
The product is used for lubrication of sliding surfaces in hard-to-get-at locations in machinery. It is also intended for use as a release agent in duplicate plate molding processes, reports Miracle Power Products Co.

Sponsor states the lubricant dries instantly, leaving a tough, fine graphite film on sliding surfaces. It is also stated that the graphite maintains its anti-friction qualities to temperatures as high as 5000 deg. F.

Among uses suggested by maker is that keybars on line composing machine keyboards may be prevented from sticking in their guides and on the banking bar by use of dfg-123. Circle No. 273 on Reader Service Card.

UNILIGHT EQUALIZER HARDENS LARGE AREA EXPOSURES EQUALLY

Announcement has been made by Henry P. Korn Associated, Inc., of the Unilight Point-of-light Equalizer for point shaped (carbon arc) light sources in photomechanical platemaking operations. The device, through a constantly revolving diaphragm, is designed to provide automatic and uniform exposure to light of large surfaces in camera or printing framework at short distances. In other words, for large surface work, the adapter provides the



same uniform illumination to the outside areas of the subject being exposed as takes place in the middle area of the copy.

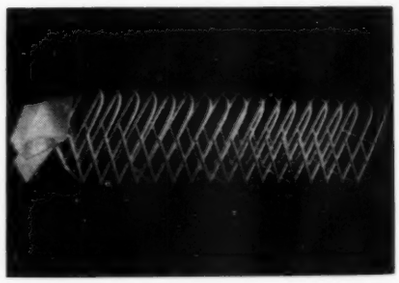
The Unilight Equalizer ring is fastened to any type of arc lamp by three or four retaining brackets. Its outside diameter is 26¾ in. Weight is 13 lbs. To rotate the diaphragm within the ring a small induction geared motor is employed. The device is said to be automatic and noiseless in operation.

Sponsor reports sharpest possible copy is gained with a reflector lamp lacquered rough matte black inside.

According to Korn, Unilight may be used for any copying process such as intaglio screen, halftone and offset work. Circle No. 250 on Reader Service Card.

RECEIVING TRAY DEVELOPED FOR USE WITH GATHERING UNIT

A receiving tray said to speed and simplify paper collating has been announced by the Evans Specialty Co. Made



of lightweight aluminum, it is used with the Evans gathering rack. As groups of paper are assembled from the rack, they are dropped criss-cross into the receiving tray in sets ready for removal and stapling. According to sponsor, rack and tray combination is estimated to cut collating costs by two-thirds. Circle No. 259 on Reader Service Card.

SYNTHETIC CHAMOIS MATERIAL FOR PLATE AND TYPE CLEANING

Chamie-Tex, a synthetic chamois made of nitrile rubber and nylon, is being offered by Milwaukee Dustless Brush Co. for type and plate cleaning applications in printing and engraving plants. Said to be unharmed by grease, oil or solvents, it can be cleaned by washing in soaps or detergents according to the sponsor. It is available in 18 in. by 21 in. size. Circle No. 285 on Reader Service Card.

Showing Ludlow matrices "gathered" in single operation ready to place in matrix stick

Ludlow "Gathering"

helps you reduce composition costs

The above illustration shows one reason why Ludlow composition goes up so easily and so quickly. The compositor does not have to pick up single types or spaces one-at-a-time and insert each character in the composing stick. Instead he "gathers" broad, flat, easily-handled Ludlow matrices in word or syllable groups, and inserts them as a unit in the Ludlow matrix stick.

Spacing out the line is likewise an easy operation. A turn of the matrix stick thumbscrew holds the line firmly for casting. These and other Ludlow advantages help you to reduce composition costs, and make for greater composing room production.

Ludlow Typograph Company 2032 Clybourn Ave., Chicago 14

Set in members of the Ludlow Tempo family

For More Information Circle 107 on Reader Service Card

PRINTING INDUSTRY PATENTS

Covering patents issued February 3, 10, 17 and 24.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

CONTROL UNIT FOR COMPOSING MACHINES

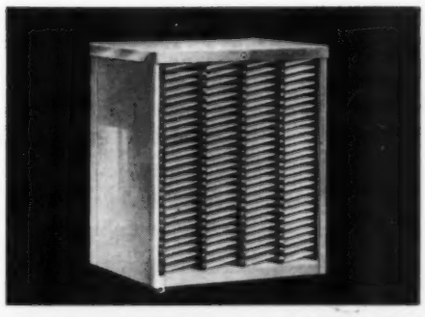
The control makes it possible to suppress unwanted information punched in a tape under the control of special code indicia in the tape. The feeding or stepping of the tape may be speeded up during the effectuation of the suppression function. The control is for use with tape which may be prepared by the operation of a perforator such as covered by patent 2,059,-250. Patent 2,872,025 by Rolf A. Thienemann, assigned to Fairchild Camera & Instrument Corp.

JUSTIFYING SPACER FOR LINES OF TYPE

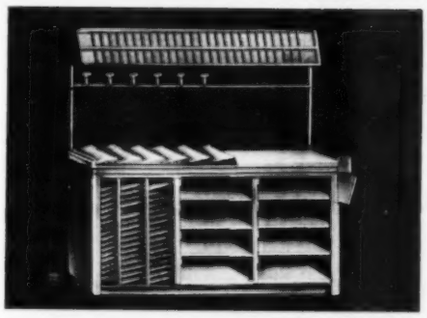
For use with circulating matrices in photographic typesetters, this spacer has a resilient flexible dependage hinged at one end which is capable of lateral flexing with respect to spacer to engage next adjacent matrix in a line. This lateral flexing is accomplished by the engagement of a justifying bar with the depending part of spacer. Patent 2,872,846 by William J. Ruberti.

ASSEMBLING ELEVATOR CONTROL

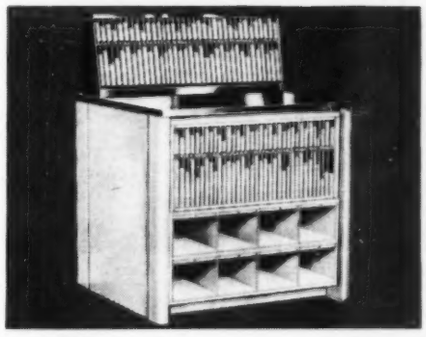
Automatic composing machines of the general organization represented in the Mergenthaler patent 436,532 are equipped with a mechanism which automatically prevents the raising of the assembling elevator when the failure of a matrix or spaceband to be delivered in accordance with the operation of the keyboard is detected. This invention accomplishes this purpose by counting the number of signals in the tape calling for matrices and spacebands and comparing that to the number of matrices and spacebands actually delivered to the assembling elevator. Patent 2,874,825 by Louis Rossetto, assigned to Mergenthaler Linotype Co.



Galley Cabinets
Whatever your galley storage requirements, Hamilton has the answer in its complete line of galley cabinets. Hamilton galleys come in ten standard sizes in single column to eight column widths. Hamilton galley cabinets not only contribute to the better organization of your shop, but give maximum protection to expensive type composition.



Newspaper Tables
Hamilton newspaper tables come in five table lengths . . . three styles of working tops . . . two types of overhead lights . . . and over 90 different materials storage units! Whatever your needs, your nearby Hamilton dealer will help you design a newspaper table to meet them —and Hamilton will build it at no extra cost.



Ad Assembly Cabinets
Hamilton's complete line of ad assembly cabinets offer convenient storage for large quantities of full length and cut-to-measure make-up materials. Ad assembly cabinets can be supplied with any combination of cut-to-measure storage inserts, type cases, bin inserts, letterboard shelves or galley shelves.

CUT labor costs in your plant with a Hamilton equipped composing room

Hamilton equipped composing rooms cost just pennies per labor hour to install -- a cost repaid over and over through increased productivity. For complete details and engineered equipment help, see your Hamilton dealer or write: Printers Equipment, Hamilton Manfacturing Company, Two Rivers, Wisconsin.

See Hamilton at the ANPA Conference - Booths 76-77, Morrison Hotel, Chicago -- June 21-25!

Hamilton

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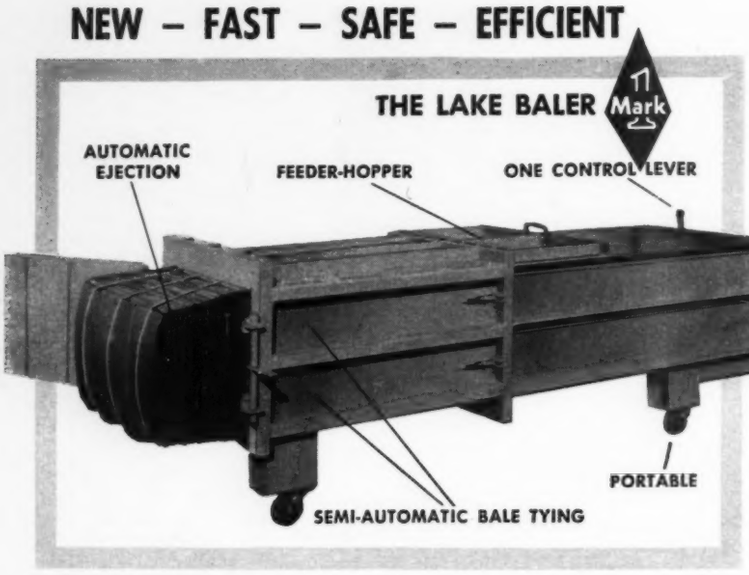

A BALER SPECIFICALLY DESIGNED FOR MEDIUM REQUIREMENTS
Will Save You Time — One man can dispose of tremendous quantities of trim, boxes and other miscellaneous materials.
Will Save You Space — Easily one half of your waste disposal area can be converted to production or storage.
Will Make You Money — Baled materials can be sold.

Manufactured By
LAKE ENGINEERING COMPANY
312 Gostlin Street Hammond, Indiana

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Only the Carlson Finisher Has Complete Visibility

That's why we put the motor out of the way

NO PEERING UNDER

NO BENDING BACK

Seeing exactly what you are doing is the key to accurate, fast outlining and mortising. To get a clear, unobstructed view, the motor and drive of the Carlson Finisher are put *underneath* the table. Plates are placed face up with no locking or blocking needed. You see every line and have perfect control at all times. Work is easier and faster.

When outlining, the cutting tool is raised and the work is moved to the tool, making a perfect vertical cut. The first cut for mortises is pinpointed with the swing-up Locating Pin. The tool is raised through the plate and the mortise is quickly made. In both cases the chips adhere to the dead metal. Cuts right up to live material if necessary.

THE CARLSON FINISHER IS SPECIFICALLY USED FOR MORTISING AND FINISHING BY OVER 150 NEWSPAPERS

Chesley F. Carlson Company

BEN FRANKLIN BUILDING / MINNEAPOLIS 15, MINNESOTA

For More Information Circle 33 on Reader Service Card

AUTOMATIC CONTROL FOR LINECASTING MACHINES

To obviate the appreciable delay which must be introduced between the time that the horizontal rule code combination is read or sensed by a record reader and the time the plate is dropped in the composition of one line want ads, this control effectively times the release of a horizontal rule for delivery to the galley between the proper lines of type. Patent 2,872,026 by Edward S. Larson, assigned to Fairchild Camera & Instrument Corp.

Platemaking:

MILLING MACHINE FOR CYLINDRICAL STEREO PLATES

With this machine, it is possible to cut as many as eight stereotype plates simultaneously. Radial feeding of the plates is effected by operating a foot pedal; longitudinal feeding is performed by operating a wheel with the right hand; and peripheral feeding is accomplished by a left hand wheel. The mounting and driving mechanisms for the machine are enclosed and protected from dirt. Patent 2,871,766 by Axel O. Olsson and Johan L. Dahl, assigned to J. Dahl & Son, AB.

BISTABLE CIRCUIT

Group composition of color separation transparencies can be attained in such a way that primary register openings provided in the layout sheets and carrier sheets have a continuing function throughout the layout. The composition also facilitates handling and use of the group assemblies to establish accurate relative positioning of the related color separation transparencies on the carrier sheets and to establish accurate location of the several transparencies in the photo composing machine. Patent 2,872,572 by James L. Burrows, assigned to Laboratory for Electronics, Inc.

ENGRAVING MACHINE STYLUS INDEX

For making relief printing plates, an engraving stylus can be accurately observed, gauged and adjusted with relation to surface to be engraved. This is accomplished by the use of a microscope which is so accurately marked that it can be operated by persons unskilled in the engraving art. The invention is a modification and improvement of the indexing apparatus of patent 2,788,255. Patent 2,874,479 by Monroe Farber, assigned to Fairchild Camera and Instrument Corp.

POSITIVE WORKING PLATE AND METHOD FOR MAKING SAME

This method produces an ink receptive image on a hydrophilic background directly from a positive. This eliminates the need for the production of a film negative heretofore required for photolithographic printing and which is capable of use to produce an imaged plate on various types of lithographic surfaces. Patent 2,875,046 by Thomas U. Marron, Fred K. White, jr., and Helen M. Rosenberger, assigned to A. B. Dick Co.

LITHO PLATEMAKING

The process is useful for the production of lithographic printing plates. It is superior to those using bichromate or diazo-plate processes in that only visible light is used and the ultra violet light of prior art is not required. In one example, an acrylamide and riboflavin solution was irradiated with a half kilowatt tungsten filament projection lamp. Patent 2,875,047 by Gerald Oster.

RELIEF PRINTING PLATES AND METHOD FOR FABRICATING

With this method a relief image can be prepared after photographic exposure of the plate in a much shorter time than ordinarily required. A layer of plastisol, which is a viscous dispersion of a vinyl chloride resin in a liquid plasticizer, is applied to a base sheet, after which a metallic infra-red reflective layer is applied; then a photosensitive layer. This plate is adapted for development to an acid resist after selective luminous exposure. Patent 2,875,051 by John De Maria, assigned to Chemical Products Corp.

VARIABLE RATIO ENGRAVING MACHINE

The machine will produce automatically and at a desirable speed of operation, an engraved plate suitable for use in a printing process, and having any desired size relationship to the original subject matter. The machine uses an optical scanning system and both enlargement and reduction, between selected limits in each case, can be obtained by simple and reliable means. Patent 2,875,275 by Frederick P. Willcox, Ludolph F. Welanetz, Reuben J. Autere, and James S. Hellen, assigned to Fairchild Camera and Instrument Corp.

Printing Presses:

APPARATUS FOR PRODUCING MAGAZINES AND THE LIKE

With these machines, the various pages of magazines are printed on a plurality of webs, which are then rewound so as to form pre-printed web rolls. After all of the magazine pages have been printed, the printed webs are unwound and associated into suitable groups, according to the order of the pages in the magazine, the webs of each group being arranged in registered relationship. Signatures are then cut, folded, stacked, stapled or otherwise bound. The webs are printed at high speed, then cut, folded, assembled, and bound at a comparatively low speed. Patents 2,873,112 and 2,873,113 by Curtis S. Crafts and Henry L. McWhorter, assigned to Miehle-Goss-Dexter, Inc.

CHECK SHINGLING ATTACHMENT FOR A PRINTING PRESS

Shingled strips are made directly from a web as it emerges from a printing press by this attachment, which is mounted adjacent the cutoff knife on a straight flatbed press. The attachment receives its power from the moving parts of the printing press and need not be separately powered. Patent 2,873,115 by Theodore P. Dusenbury and Charles G. Warren, assigned to Burroughs Corporation.

DRIVE MECHANISM FOR PROOFING PRESS

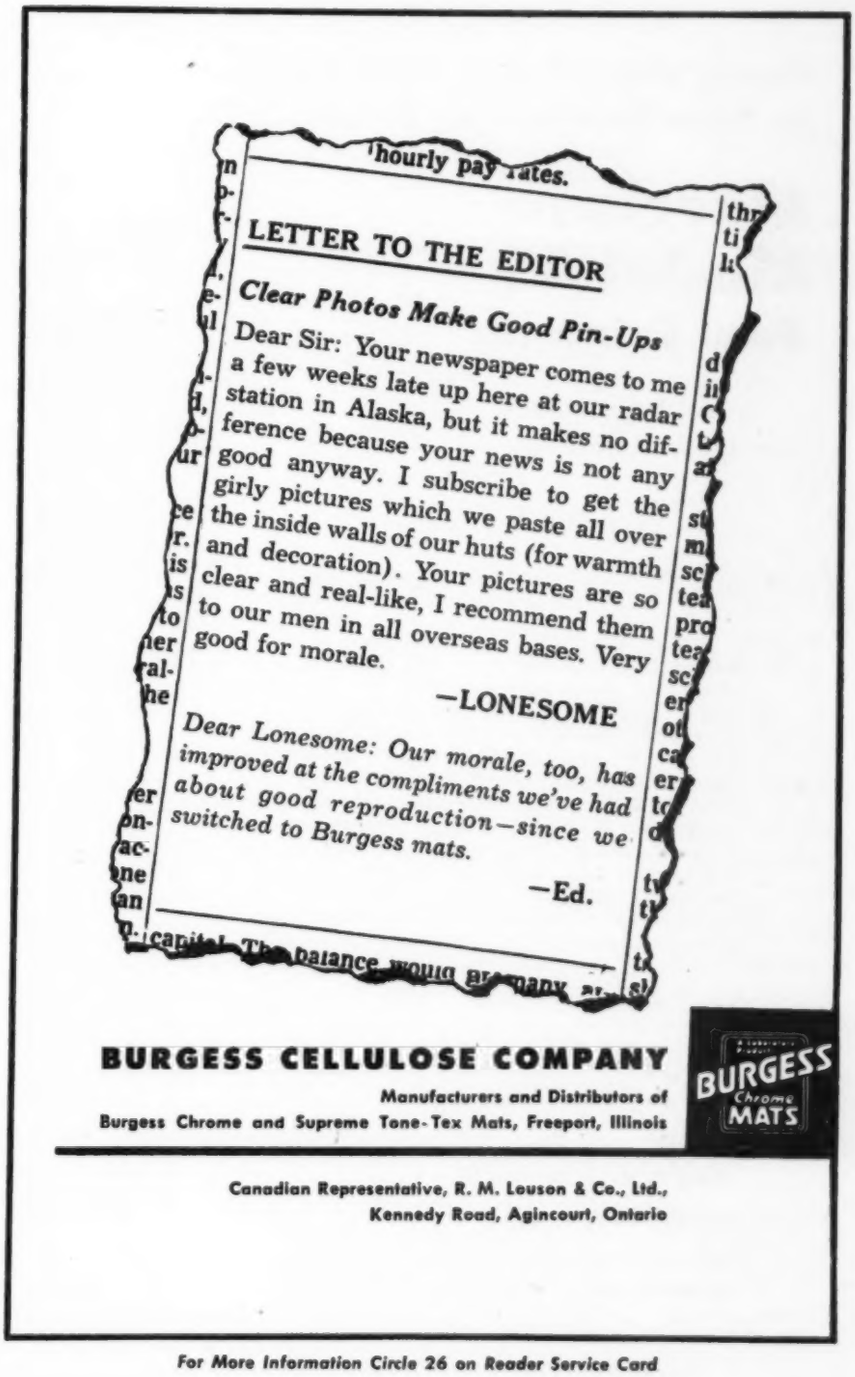
The gravure cylinder rotates continuously while the impression cylinder at first remains stationary, so that the proofing sheet may be placed at a specific place on the impression cylinder. Both cylinders have catching devices, one of which can be engaged and disengaged. Deviations in register of polycromatic prints can be quickly recognized, and the improvements recognized, and the improvements eliminate faults of prior machines. Patent 2,873,672 by Willy Sauberlich and Alfred Hickethier, assigned to Maschinenfabrik Goebel G.m.b.H.

STEAM SATURIZING MEANS FOR OFFSET PRESS

This invention is intended for use on the Multilith Model 1250 but could be applied to other offset presses. Steam is formed by electrical energy, and has an improved water container with a slot-like passage to direct steam at the cylinder surface. Steam is more easily controlled than formerly, and the device can be attached with less expense. Patent 2,873,667 by Elliot Mandel and William Goldsborough; entire interest in said Mandel.

SHEET GUARD ARRANGEMENT FOR CYLINDER PRESSES

The guard prevents sheets that might fall off the sheet delivery part of a press from falling into the path of the main drive


hourly pay rates.
LETTER TO THE EDITOR
Clear Photos Make Good Pin-Ups
Dear Sir: Your newspaper comes to me a few weeks late up here at our radar station in Alaska, but it makes no difference because your news is not any good anyway. I subscribe to get the girly pictures which we paste all over the inside walls of our huts (for warmth and decoration). Your pictures are so clear and real-like, I recommend them to our men in all overseas bases. Very good for morale.
—LONESOME
Dear Lonesome: Our morale, too, has improved at the compliments we've had about good reproduction—since we switched to Burgess mats.
—Ed.
BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of
Burgess Chrome and Supreme Tone-Tex Mats, Freeport, Illinois
BURGESS Chrome MATS
Canadian Representative, R. M. Louson & Co., Ltd.,
Kennedy Road, Agincourt, Ontario

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gear and into the path of associated elements of the drive. The guard is made up of deflecting parts at opposite ends of the press carriage and stationary vertically extending parts which are disposed on either side of the opening on top of the base, corresponding to the path of travel of the main drive. Patent 2,871,782 by Artur Buttner, assigned to Schnellpressenfabrik Aktiengesellschaft Heidelberg.

PRINTING ROLL AND STRIP

A self anchoring feature is provided for the printing element of a printing data roll to facilitate its interchangeability and to produce improved printing impressions. The strip is of T shape and its parts are made of flexible rubbery material to attain the above characteristics. Patent 2,871,783 by Julius Schmutz, assigned to Schmutz Manufacturing Co., Inc.

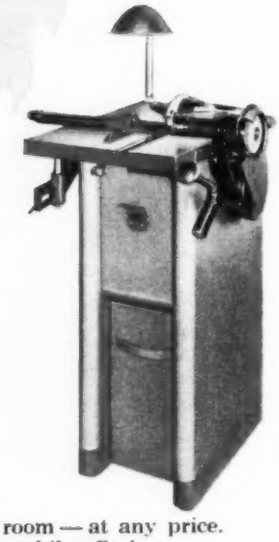
ROLLING CONTACT FORM LOCKING DEVICE

For use with tubular printing presses having a plurality of cylindrical type forms and which are subject to the printing of a number of pages of a sheet of paper at one time with different printed matter, such as required in newspaper work, this press and lock permits removal and insertion of the type forms by end wise sliding movements. The locking device comprises threaded locking bolts of truncated cone shape for engaging the type forms. Patent 2,874,638 by Herbert J. Lowe.

Prove this "Year's Best Buy" in Your Composing Room . . .

Morrison Model 45 Saw Trimmer

. . . with "Trigger Speed" Saw Blade Adjustment



● The exclusive Pistol Grip saw blade adjustment alone, on this Model 45 Saw Trimmer, makes it one of today's outstanding time-savers in any composing room — at any price. Yet the "45" costs *less* than most trimmers, while offering *more* in versatility, speed, accuracy, safety. And it is available with all these popular Morrison accessories — 75-pica gauge and Behind-the-Gauge Workholder; 135-pica extension gauge; standard miter gauge; right and left-hand miter vise; saw grinder with dished emery wheel; trimmer grinder; flat emery wheel and guard; universal saw blade assembly with head and trimmers; adjustable light; waste receptacle, motor and tools.

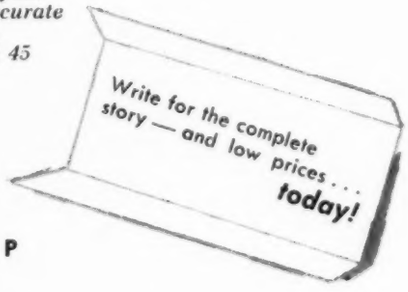
You'll save time and labor in your composing room — do more accurate work at less cost — with the new Morrison Model 45 Saw Trimmer.

THE

Morrison

COMPANY

125 W. Melvina St., Dept. P
Milwaukee 12, Wisconsin



For More Information Circle 127 on Reader Service Card

PATENT SEARCHES

For Patent Research in the U.S. Patent Office, or prompt estimate on any type of search, write

INVENTION, INC.
Munsey Bldg., Washington 4, D. C.

PRINTING APPARATUS

This printing apparatus includes type sets, each of which can be displaced in a straight line parallel to the direction of the lines in the finished print, the print of each line being flat, thereby not requiring any curvature of the paper transverse to the feeding direction of the latter, if the paper is fed at right angles to the direction of displacement of the line type sets. The arrangement of parts contributes to a high printing speed of up to 1200 lines per min. for each individual type set. Patent 2,874,634 by Theo Hense, assigned to Olympia Werke A.G.

JOURNAL FOR PRINTING CYLINDER

This journal bearing is not subject to any movement and thus secures a more accurate register in two-color offset printing presses. A sleeve bearing is mounted in the printing press frame on the drive side and cylinder shaft is mounted in said bearing and is secured against axial displacement by a ring-grooved bearing which drives the cylinder drive gear through a connecting member. The drive gear is rotatably mounted on the sleeve bearing. Patent 2,874,635 by Robert Reinartz, assigned to Maschinenfabrik Augsburg-Nurnberg, A.G.

CYLINDER THROWOFF FOR ROTARY OFFSET MACHINE

In perfecting offset presses where the paper to be printed passes between two blanket cylinders each of which acts as the impression cylinder for the other, this throwoff mechanism provides for throwing off the movable cylinders in a more or less vertical direction and since three cylinders must be moved to accomplish the complete throwoff operation, this invention also provides for simultaneously moving two cylinders in opposite directions a like amount and for moving one of the outermost cylinders a greater distance sufficient to separate it from the next adjacent moved cylinder. Patent 2,874,636 by Arthur G. Royer and William J. Thompson, which has been assigned to Harris-Intertype Corporation.

REGISTER CONTROL OF MOVING WEBS

The control factor of this device is maintained by measuring register errors at intervals, which may correspond to the passage of several preprinted units, and subtracting to find the change in the error between two measurements. This provides for the automatic register control of continuous moving webs and a register error is reduced by periodically adjusting a register correction means in accordance with both the magnitude of the error and the change in error during a short period.

preceding an adjustment of the register correction mechanism. Patent 2,873,117 by John F. Crosfield and Daniel Gold, assigned to J. F. Crosfield, Ltd.

Feeding, Folding, Delivery:

SHEET FEEDING SYSTEM FOR PRINTING PRESSES

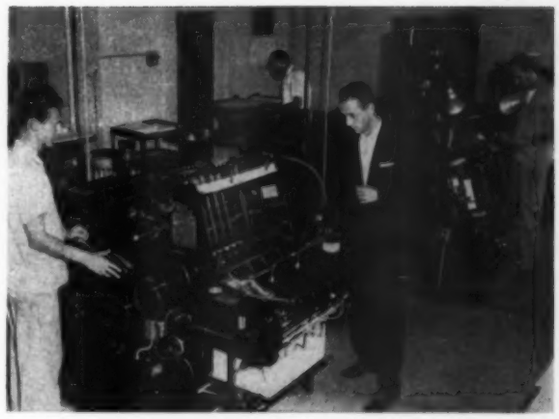
In a sheet feeder of the general type of that covered by patent 2,714,006, this system is adapted to separate the sheets prior to engagement of same with a feeder. The sheets are registered at a high rate of speed but the sheets being moved into proper registry are guided at a reduced force to prevent buckling or bounce-back. Patent 2,874,962 by Paul W. Layden.

FOLDER FOR PRESSES

For folding sheets as they are issued from a press without the use of tucker blades, this device uses a longitudinally extending jet of gas under pressure for forcing the sheets into the opening between the clamping jaws. Patent 2,872,186 by William B. Raybuck, assigned to Fred'k H. Levey Company, Inc.

FEED FOR WEB PRESS

In a web feeder for a printing press having indexing rolls and web tension control blocks, in which the web feeder comprises a mill roll, this patent provides a mechanism to continually unwind the web from the mill roll, and to pull the unwound web tautly around the mill roll to form a slack loop in immediate advance of the tension control blocks of the press. Patent 2,872,188 by Elza E. Harkins and Don H. Young, assigned to Royal McBee Corp.



Adds New Heidelberg — Theodore C. Fenn, jr., watches a 15 in. by 20½ in. Original Heidelberg cylinder press which was recently installed beside a 10 in. by 15 in. Heidelberg platen press at Chesterfield Press, New York, N. Y. This press combination produces four-color process work for magazine inserts, reprints and merchandise brochures.

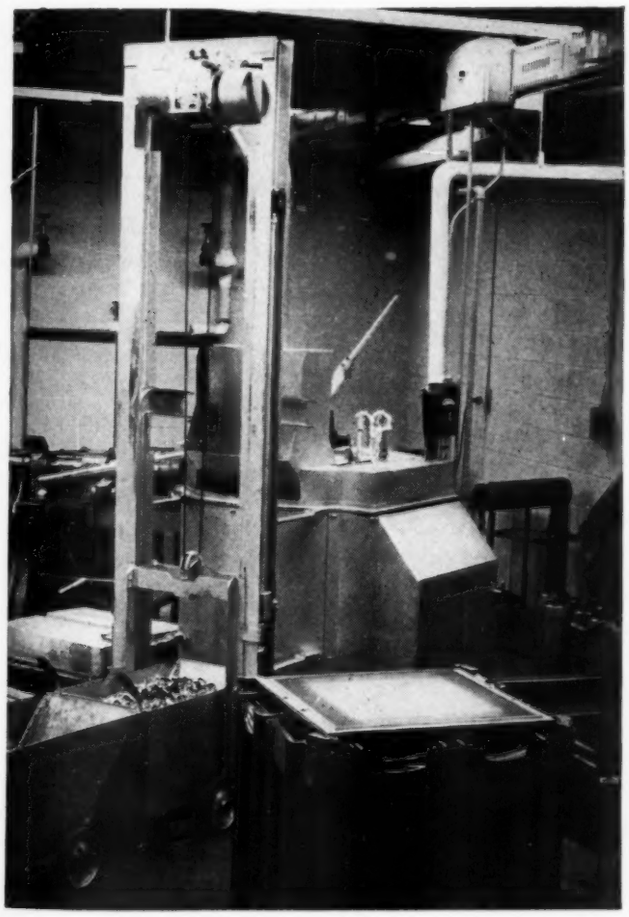
Bindery:

BOOK FEEDING MECHANISM

The transfer device of this invention is pivotally movable about a longitudinal axis. It engages each book and moves it from receiving position to a transfer position, which may be vertical. This is done in timed relation with the belt movement. The device is similar to that of patent No. 2,785,812. Patent 2,842,254 by Carl Schramm, assigned to Smyth Manufacturing Co.

ACTUATING MECHANISM FOR COLLATING MACHINE

The machine is cyclic in operation and dispenses and registers sheets from various stacking stations in timed relation and in coordination with a sheet conveyor. The stacking stations are arranged in stepped formation, the lowest station or tray containing the last page of the future collated pack and the highest station containing the first page. The actuating mechanism for the machine comprises a system of simple levers of essentially the same construction operated progressively ninety degrees out of phase with respect to each



Cut labor costs with mechanized remelting . . .

KEMP REMELT POTS AND AUTOMATIC METAL LOADER

The Kemp Remelt Pot with Automatic Metal Loader can save hours of time and labor . . . slash handling costs in remelt operations. Scrap metal is collected in the truck, then wheeled to the loader where a touch of a button lifts and gently slides it into the pot.

In the pot, Kemp's immersion heating principle . . . the application of heat from inside the pot . . . gives extremely even temperature distribution and cuts dross formation to raise production quality. Fast recovery rate increases capacity and speed of casting . . . cuts utility costs to the bone.

Your Kemp Representative will give you complete details on gas or electric heated Kemp Stereo and Remelt Pots. Or write direct for Bulletin IE-9. The C. M. Kemp Mfg. Co., 405 E. Oliver St., Baltimore 2, Md.

KEMP OF BALTIMORE

Kemp Obround Stereo Pot

For More Information Circle 198 on Reader Service Card

other for sequentially feeding sheets of paper from the stations. Patent 2,873,966 by Robert D. Lambert, assigned to Halvorsen Products Manufacturing Company.

MACHINE FOR TRIMMING EDGES OF STAPLED BOOKLETS

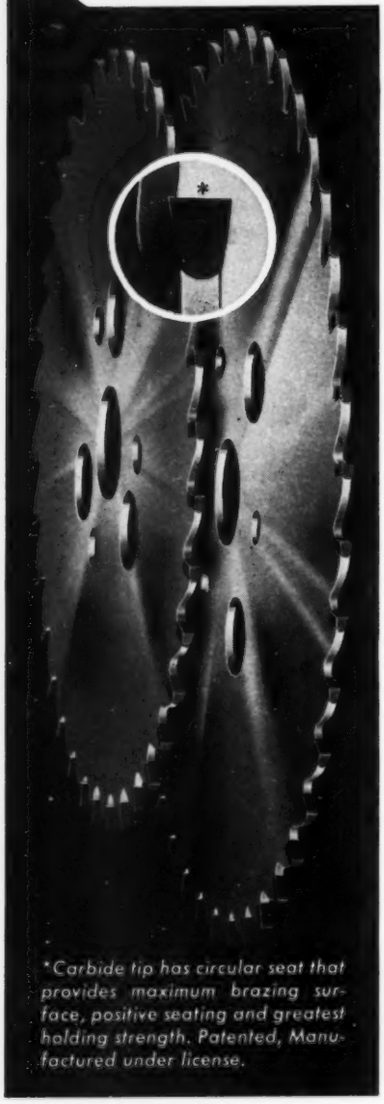
The automatic trimming of stapled booklets, supplied singly, can be effected in two strokes of a cutting knife. The first stroke involves the use of two knives which descend simultaneously to cut the top and bottom parts of the booklet and the second stroke cuts the open edge. The trimming machine may be combined with any laying on device which can lay on finished stapled booklets, or with devices which staple the booklets. Patent 2,874,775 by Hans Muller.

Miscellaneous:

COMPOSITION FOR PRINTING ON VINYL PLASTICS

The emulsions may be pigmented or unpigmented and comprise vinyl chloride-acetate polymer or lower alkyl methacrylate modified drying alkyd, and cellulose acetate butyrate dissolved in a volatile, water-immiscible organic solvent. Morpholine oleate may be added to promote formulation of water-in-oil emulsions. Patent 2,872,423 by Gabriel F. Goldstein, assigned to Interchemical Corporation.

CARBIDE "THINSAW"



GAY-LEE GUARANTEES
—LONGER LIFE
—CLEANER CUTS

Try It FREE for 30 days!

The secret's in the circular seat! Patented carbide tip design and Gay-Lee method of brazing carbide tips to saw provide: positive seating, more brazing surface and greater holding strength — carbide tips will not break loose.

Designed for composing rooms, these "Thinsaws" operate smoothly without scream, pileup or sticking even on the new alloys including Dow metal. They give you cleaner cuts, excellent back rake cutting, freedom from burrs and *eliminate the need for trimmer blades.*

Gay-Lee Printer's "Thinsaws" outlast all others regardless of cost—they soon pay for themselves! Try one in your shop—absolutely free for 30 days. *If not* completely satisfied, return it for full credit.

IMPORTANT: Please specify make of machine. Also using your present saw as a template, trace the hole pattern and send us the tracing.

*Carbide tip has circular seat that provides maximum brazing surface, positive seating and greatest holding strength. Patented, Manufactured under license.

GAY-LEE COMPANY
CLAWSON • MICHIGAN
CARBIDE SAW SPECIALISTS

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BOOKS for the PRINTING INDUSTRY

ALA's Litho Brochure

A brochure entitled *The Changing Look in Litho, USA,* has been published by the Committee on Technological Developments of the Amalgamated Lithographers of America. In the 36 page brochure it is predicted "spectacular growth for the lithographic industry within the next 10 years" will be made possible because of technological innovations.

Edward Swayduck, director of technology, states: "Automation is not a scare word to the Amalgamated. We do not believe in unreasoning opposition to new developments even though particular jobs are affected. Fortunately, two factors favor our position: (1) We are part of an expanding industry, needing more and more skilled manpower, and (2) The retraining, shifting or rehabilitation of workers from one branch of the trade to other branches."

Under the title, *What is the Changing Look?* new developments and processes are discussed. Included is information on automated listing cameras, typesetting typewriters, photolettering machines, phototypesetting machines, electronic color separators and correctors, films and cameras, litho plates and presses. There are also a number of other interesting discussions. The brochure is well illustrated with black and white and four color printing.

Swayduck states his committee will continue meeting with lithographic printing equipment and supplies manufacturers to keep abreast of latest technological developments.

Including Swayduck, members of the committee include Kenneth Brown, president, Local 12, Toronto, Can.; Harry Spohnoltz, president, Local 4, Chicago, and Wilfred Porter, president, Local 8, Cincinnati, Ohio.

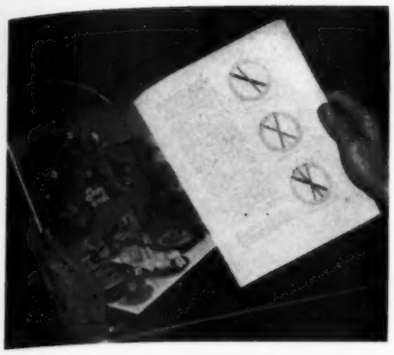
At ALA's 1947 convention, delegates proposed a million dollar research fund to speed up introduction of new technology in the lithographic industry.

Publishing address of ALA is 233 W. 49th St., New York 19, N. Y.

Line, Halftone & Color

The American Photoengravers Assoc. has done itself proud by publication of the book: *Line, Halftone & Color—An Introduction to Modern Photoengraving.* The book is intended for distribution by photoengraving companies to their customers. In handsome manner, it shows what can be done by proper use of photoengraving and the effects which can be secured in illustrative material in black and white and in color.

Included are detailed and graphic demonstrations of line, halftone and color engraving, with helpful suggestions for prepa-



An inside page spread from the new book *Line, Halftone & Color* published by American Photoengravers Assoc. Cover of the book is in background.

ration and handling original copy. A number of newer developments in photoengraving and letterpress printing are also discussed.

In separate chapters there is information on reproduction of line originals, continuous tone originals and color originals. Chapters are illustrated in black and white, two colors and in four-color process. Four color dot formation is explained, also how color filters are used, progressive proofs and a color chart shows the infinite number of color combinations that can be achieved in process color printing. A glossary of terms is included.

The book consists of 48 pages, 8½ in. by 11 in., Smythe sewed in eight page signatures, with hard bound laminated cover. It is a beautiful example of modern commercial letterpress printing.

The book is available from local photoengravers who will supply one or more copies on request.

Helpful Literature

(Continued from Page 32)

PLASTIC BINDING EQUIPMENT

Plastic Binding Corp.'s illustrated catalog contains descriptions of the complete line of Plastico punching and binding machines and equipment. Machines were designed for binding catalogs, books, manuals, calendars, and the like. Circle No. 333 on Reader Service Card.

SPEED-KLECT SHEET COLLATORS

Speed-Klect sheet collators are discussed in a bulletin released by Didde-Glaser, Inc. Also available is an 11 min. 16 mm. color sound film entitled, *Speed-Klect in Action*. Circle No. 310 on Reader Service Card.

RCA STRIP LIST PRINTER

The RCA Strip Lister prints mailing labels in continuous rolls. Up to 24,000 names per hour can be addressed from standard 2⅝ in. stencils. This four page illustrated bulletin is well illustrated. Circle No. 337 on Reader Service Card.

Miscellaneous

SIMPLIFIED MACHINE INSTALLATION

A six page engineering data, well illustrated bulletin has been published by Unisorb Div., the Felters Company. Subject matter is concerned with information on simplified machine installation and vibration control. Included are descriptions of Felters Unisorb antivibration materials for machine mounting. Circle No. 343 on Reader Service Card.

CHEMICALS OF PAPERMAKING

Printing executives as well as paper buyers interested in knowing about important elements in papermaking will want to read *Chemicals of Papermaking*, published by Fraser Paper, Ltd. Booklet consists of 62 pages and many illustrations. Reprints from *The Fraser Voyageur*. Circle No. 339 on Reader Service Card.

STEEL FLOOR PLATE

Alan Wood Steel Co. has issued its Bulletin AL-N5 to describe the A. W. Algrip abrasive rolled steel floor plate, which can be used as an independent flooring overlay. It is recommended for use wherever slipping hazards exist. Circle No. 315 on Reader Service Card.

RUBBER MARKING PLATE BULLETIN

For those companies using rubber plates to mark products, labels or packages, Markem Machine Co. has made available an illustrated folder descriptive of its rubber plate service to customers. Markem furnishes complete service from copy, art and layout through to complete plates. Circle No. 341 on Reader Service Card.

VERTICAL AND ROLL FILING EQUIPMENT

Equipment for orderly filing of offset plates, negatives, blue prints and large surface diagrams is illustrated and described in a 12 page letterhead size catalog by Plan Hold Corp. Materials may be filed safely in vertical or roll form in cabinets or by means of wall racks. Circle No. 330 on Reader Service Card.

MATERIALS HANDLING TRUCKS

Engineering data, specifications and operating information are presented in Elwell-Parker Electric Co.'s new catalog on fork trucks. More than 25 basic fork truck models are illustrated and described. Circle No. 334 on Reader Service Card.

Engineering for the
GRAPHIC ARTS

TO MEET GROWTH REQUIREMENTS

- ANALYSIS OF PRESENT OPERATIONS
- REPORTS AND RECOMMENDATIONS
- PLANS AND SPECIFICATIONS
  - plant rearrangement
  - plant extension
  - new plant
- CONSTRUCTION MANAGEMENT

CHAS. T. MAIN, INC.

BOSTON, MASSACHUSETTS • CHARLOTTE, NORTH CAROLINA

For More Information Circle 110 on Reader Service Card

Efficiency Expansion Chucks

In one operation, lever the cam and lock it. It won't slip —ever. Unwind, rewind, or brake easily. There are efficiency expansion chucks for either fibre or steel cores up to ten inches in diameter—for shafts of 1" to 3½" in diameter in graduations of 1/16".

Chucks are inter-changeable—no rights or lefts. Give years of service—made of malleable high strength castings. Surfaces which contact core are precision machined. Lever action applies powerful force to the expansion jaws. Ribbed jaws bite firmly into core, eliminating core slippage when starting or changing speeds, even under extreme brake tension.

Write for the full time and money saving facts to—

VALLEY MFG. CO. Valley, Nebraska

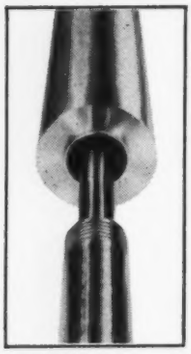
For More Information Circle 184 on Reader Service Card

Removable Plate Cylinders Slash Down-Time on Rotary Presses

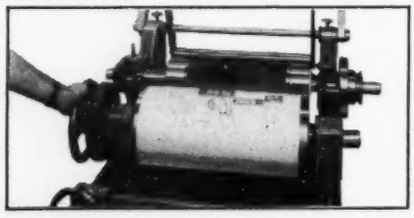
Greater press productivity and more profits. Desirable, yes . . . but how do you get them? The answer can lie in setting up, making ready, registering and proofing jobs *before* they are placed on the press — thus keeping press down-time between job changeovers to a bare minimum. These advantages are all within your reach by using *removable* instead of fixed plate cylinders.

Some rotary letterpress machines have been designed to accommodate removable plate cylinders, while others have been modified to incorporate this time-saving, profit-making feature. Today, there seems to be a definite trend in this direction.

A variety of types of removable cylinders are now available — both integral-shafted steel cylinders and demountable assemblies in which a core is fitted to a common shaft.



Growing rapidly in popularity, however, is a relatively recent development that combines the accuracy and precision of finest shafted cylinders with the cost-saving, space-saving advantages of demountables. This is the "D-MOUNT" Cylinder — best described as an integral cylinder with interchangeable shaft because you actually shrink-fit both together in a rigid assembly. The unique "D-MOUNT" system makes it an easy, few-minutes job to assemble the cylinder in your own shop . . . also to disassemble it after the run. Foolproof, it automatically centers the shaft in the bore every time, insuring consistent accuracy and concentricity. Made of magnesium, "D-MOUNT" sleeves are easier to handle than shafted cylinders . . . permit faster running speeds . . . and take up ⅔ less space than shafted cylinders. Users report an average saving of 50% in cylinder costs since switching to "D-MOUNTS."



Another valuable aid that helps you get the most out of a rotary press with removable plate cylinders is the "MOUNTER-PROOFER" Machine. This is the key to precision mounting of plates on the cylinder in minimum time and to multicolor proofing of the job—freeing the press for printing production exclusively. Easy to operate, the "MOUNTER-PROOFER" can be advantageously employed with tympan or carrier sheets as well as removable cylinders.

Both "D-MOUNT" Plate Cylinders and "MOUNTER-PROOFER" Machines have been thoroughly proved and accepted in the field of flexographic printing. They are now finding a place in the letterpress field too, serving as important profit-builders wherever rotary presses with removable cylinders are in use.

Inquiries (from both printers and press builders) regarding either or both of these products will be answered promptly by the manufacturer, a leader in the field of graphic reproduction for over 50 years. Please address Mr. Charles J. Fillare, Mgr. Sales Promotion, Mosstype Corporation, Waldwick, N. J.

Circle 139 on Reader Service Card

Exposition Displays

(Continued from Page 49)

around the Mounter-Proofer machine for setting up and preproofing rubber plate jobs off the press. Mosstype will also show latest developments in printing from its rubber plates and rubber design rollers. See this at Exhibit Space 186.

Williamson and Company's exhibit will feature materials used in molding duplicate letterpress printing plates made of rubber and/or plastic materials. Demonstrations will be given showing the various steps in the molding of these plates from type forms, engravings and electrotypes. The purpose of each of the materials used will be explained and the best method of handling will be reviewed. A Williamson Platemaster hydraulic molding press will be in operation. See this at Exhibit Space 117.

Raised Printing Displays

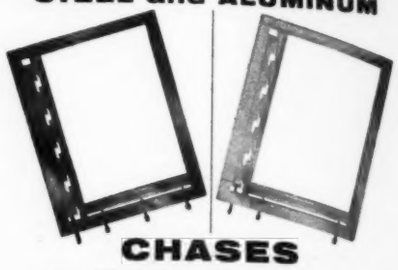
Live demonstrations of raised printing for interested Exposition visitors will be carried out by Virkotype Corporation. One of the company's automatic raised printing machines will be in operation in conjunction with a Holmes Vertical Press. In addition, four units of printing and paper decorating equipment will be on exhibit. See this at Exhibit Spaces 135 and 136.

The display of Regency Thermographers will consist primarily of samples of raised printing which this company calls Heliograving. Also featured will be samples of social and commercial stationery produced by the company's Photo Lettering Process. The latter is a combination of photocomposition, offset reproduction and heliograving. See this at Exhibit Space 195.

Equipment for steel rule diemaking will be shown at the Exposition by J. A. Richards Co. See this at Exhibit Space 105B.

Kleen-Stik Products, Inc. will display its line of pressure sensitive adhesive materials for use in advertising and labeling. These consist of pressure sensitive papers, tapes, foils, and films. Unusual uses of pressure sensitive adhesives in point-of-purchase displays will also be shown. See this at Exhibit Spaces 210 and 211.

AMSCO
STEEL and ALUMINUM



CHASES

THE BEST AND MOST ECONOMICAL MONEY CAN BUY!

Amsco's electrically welded steel chases, with the smoothly ground joints are world renowned.
Amsco Aluminum Chases are specifically made for operations wherein lightness is a desired factor. Steel insert supports reduce wear to a minimum at the contact points of the foot stick and side wedge screws.
Squared and true Amsco Chases are patterned from a template or a blue print.
Amsco supplies a "complete chase line", for newspapers, commercial printers, stereotypers and electrotypers. Standards or specials are available.
CATALOG AVAILABLE FROM DEALERS OR WRITE DIRECT

AMERICAN STEEL CHASE CO.
31-31 FORTY-EIGHTH AVENUE
LONG ISLAND CITY 1, N. Y.

Circle 9 on Reader Service Card

Pass It Along

Many printing plant executives pass along copies of PRINTING PRODUCTION regularly to interested employees. In this way, a more interested production organization will be maintained.

QUICKSET INK CONDITIONER
TRIK®
for work-&-turn litho and letterpress . . .
eliminates messy non-offset spray.
1 lb. can $2.20
Send for Price List
CENTRAL COMPOUNDING COMPANY
172. N. Damen Ave. • Chicago 47, Illinois
Mfrs. of Glazcote, 20/20 Overprint Varnish, 33 & 0-33 Ink Conditioners

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MIDWEST SUPPLIES AND EQUIPMENT

The best and most economical money can buy!

Midwest has a complete line of composing, stereotype, engraving, electrotype and pressroom supplies and equipment.

Midwest stocks hundreds of supplies and represents every leading equipment manufacturer.

Midwest is a national sales organization represented by leading distributors and agents thruout the United States.

mps

For catalog write
MIDWEST PUBLISHERS SUPPLY COMPANY
4500 W. Cermak Road
Chicago 23, Illinois

Circle 111 on Reader Service Card

THE EASIEST AND BEST WAY TO TELL US YOU'VE MOVED

MY OLD ADDRESS READ:

(THE EASIEST AND BEST WAY TO GIVE US THIS INFORMATION IS TO CUT OUT THE ADDRESS SECTION OF YOUR MAGAZINE WRAPPER AND ATTACH TO THIS CARD)

NAME _____

COMPANY _____

COMPANY ADDRESS _____

CITY _____ ZONE ____ STATE _____

KEY NO. _____

MY NEW ADDRESS IS:

NAME _____

TITLE AND DEPT. _____

COMPANY _____

COMPANY ADDRESS _____

CITY _____ ZONE ____ STATE _____

FIRST CLASS
PERMIT NO. 2285
CLEVELAND, OHIO

BUSINESS REPLY CARD
No Postage Stamp Necessary if Mailed in the United States

POSTAGE WILL BE PAID BY

PRINTING PRODUCTION

1276 West 3rd Street

CLEVELAND 13, OHIO

READER SERVICE DEPARTMENT

Control of Gravure

(Continued from Page 53)

on the cutters, elimination of stop and start waste in cutting operations by adding pre-feed units and slack loops to the cutters, and improvements on electric eye cutoff register controls. Bohlke provided a number of cost computations and comparisons which he said gave his company confidence that their decision was correct.

Camera Back Masking

Lester Goda, jr. of Eastman Kodak Co., discussed camera back masking and described a new method which he said simplified older techniques. This system utilizes a silver mask and is becoming increasingly popular because it is easily standardized, and is less time consuming than other methods, he said. The new techniques overcome the objections of the magenta masking process while giving equally good results. A recently published Q-Sheet contains the details of the process, and lists the following advantages of camera back masking: Film is used, rather than glass plates; register is mechanical; conventional developers are utilized; less camera time because of procedure standardization; retains advantages of multiple exposure of masks for maximum color correction; separation negatives are fully color corrected.

William H. Vinton of E. I. du Pont de Nemours & Co. answered the question: "What's new about Cronar based Rotofilm?" He pointed out that types of printing could now be handled which previously were not possible: step and repeat work could be done; film drying time has been reduced; Cronar behaves well in that it lies flat before and after processing. Another advantage, he said, is in the developer. It has long tray life and produces a smaller amount of silver during hardening.

Gravure Ink Standardization

Edward Mante, production director of Kenyon & Eckhardt, Inc., Chicago, reported that the gravure industry is on the threshold of ink standardization. Sample sheets of ink in four process colors and tonal ranges described as samples of suggested standard colors, were distributed at the meeting. He said the national syndicated supplements as well as the regional and local supplements all agree that they are close to standardized colors. He pointed out in the case of magazines, it is difficult to standardize because of the wide variety of paper stocks being used. The supplements, however, can be standardized, it is thought, and this can be correlated with positive standards for gravure reproduction.

Etchants and automatic machine etching of cylinders were discussed in detail by Walter Thode of Art Color Printing Co. In his study of etchants and controls, Du Pont Rotofilm was used in conjunction with the Art Color Hard Dot Process. Two etches are used in this process so that automatic etching is feasible, and variables may be closely controlled. A step wedge is used on a test cylinder for each new lot of etchants, and close controls are used throughout the process.

SPEED PRODUCTION WITH RICHARDS'

SAWS • ROUTERS • MORTISERS

Stereotype Saws Three Sizes

Curved Plate Routers Tubular or Semi

Flat Plate Routers Three Sizes

Plate Mortisers Bench or Pedestal Models

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Web Offset Press

(Continued from Page 39)

a shaft extended to the delivery end of the press for the pressman's convenience. An orifice sending head is added to get the web into the desired position as it enters the press so as to obtain side register.

Stock and Condition Important

Of course, to function well on the press and to aid the above devices, the stock or paper to be run in the press, besides being wound properly and have an even sidewall, must possess certain characteristics.

Paper that works well is the offset stock in ranges from the 50 lb. paper to the 120 lb. bond stocks work well too, if used in the range from the 12 lb. stock all the way to the heavier 20 lb. Tests have shown that the press can handle bible and tissue weight stocks and will print acceptably on newsprint as well.

Vellum finished stock has been found most satisfactory, while stocks excessively smooth will offer problems. Coated stocks and heavy stocks or cardboard present an additional problem in ink drying.

Heavy stocks can create a problem also because of the sharp flexing necessary over the turn bar to reverse the printing side of the stock and then later during the sheeting operation.

While speeds of 10,000 sheets per hr. are needed in markeready to get running register and print under approximate running conditions, slower speeds will be found necessary for the lighter or heavier stocks.

Impressive Press Samples

Samples of the work run off the press are impressive. Four-color process work illustrated the cautions referred to in their preparation. In this the art work is prepared as standard for offset except that for this operation, heavy solids are never overprinted. Color proofs run sheetfed are run on the spare side or they may vary considerably from the webfed finished product.

A wire platform, easily inserted and removed is included in the delivery end of the press. This enables removal of a full load in the delivery and the insertion of an empty platform without stopping production.

Letterpress rubber plates are used in the imprinting unit. Key number changes can be run in forms without upsetting the makeready or changing press plates. This feature is useful for mailings where various lists or appeals are to be employed and accurate tabulation of results are necessary. Dealer names and addresses as well as address changes can be inserted or a signature added in a fifth color on letters.

Numbering, perforating and slitting can be done in the machine itself. Any or all these operations can be completed in one trip through the press before the sheeting operation. This provides opportunity in planning work to make use of the devices for single wrappers for boxes, envelopes for records, many types of self-mailers, advertising pieces with return inserts, etc.

Use the convenient card in this issue to tell us about address changes.

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- **ASBESTOS CURTAINS AND APRONS—for all makes of dry mat scorchers**
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unitronics, inc.

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Sharpening Paper Knives

(Continued from Page 41)

a 2F grain for final finishing on the other side. The hone is equipped with finger slots to provide safety for the user.

New Finishing Method

All knife manufacturers are striving to produce a knife that will stay sharper longer and require less regrinds. When it costs up to $40 each time a trimmer knife is changed on an automated line, as one paper plant superintendent estimated, any increase in knife life between sharpenings is an automatic decrease in production costs.

With this goal in mind, a new finish was developed by Simonds Worden White. This is called Mirro-Keen finish. It consists of a special production process that leaves each knife bright and smooth within 3 microinches (0.000003 in.) over its face side.

Mirro-Keen is built into the knife and does not need to be replaced or renewed. The standard grinding and honing procedures discussed here are recommended for Mirro-Keen as well as any other carbon tool steel paper cutting knife.

This new finish has made it possible to practically eliminate grinding marks that in the past have become accepted as a necessary evil on paper trimming knives. The new surface is smooth and uniformly free of these imperfections to such a degree that its smoothness must

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be measured with a profile recording machine and indicated in microinches. (Fig. 5.)

As a result of the smoother surface, the knife can be provided with a super sharp cutting edge that is free from burrs, nicks and scratches. This eliminates the broken and ragged edges that cause the marking and drawing of paper stock.

When To Resharpen

Paper knives should not be resharpened until the first sign of dullness is apparent. As the first sign appears they should be removed immediately from production. *This point cannot be overemphasized.* Knives are often removed from the trimmers for resharpening before they are actually dull, causing unnecessary additional expense as well as shortening over-all knife life. The same is true if a dull knife is allowed to continue on production runs. The knife will become more difficult and more costly to resharpen the duller it gets.

Improved paper knife finishes have been designed that will increase knife life. However, these are of maximum value only if correct grinding and honing procedure are followed.

Only by the proper use and maintenance of precision tools can the highest quality production at the lowest possible cost be achieved.

ANPA Conference

(Continued from Page 45)

will be talks on good advertising material and results obtained, and how mechanical departments can help advertising departments. Chairmen of the afternoon ROP color and advertising session will be David K. Gottlieb, Davenport (Ia.) *Democrat* and *Times*, and Donald V. Webber, Houston (Tex.) *Chronicle*. A color presentation by the Bureau of Advertising and discussions on success with spot color and process color are planned. What newspaper representatives should know about newspaper production is another subject on this program.

Report on Press Equipment

The pressroom session will be held on Wednesday morning, June 24, with J. J. Eberle, production manager, Miami *News* and James Harrison, production manager, Toronto (Can.) *Globe & Mail* as co-chairmen. Reports on the Hoe Color-Matic unit, Crosfield web inserting device, and the Crabtree Standard press will be featured.

Various phases of composing room operation will be reviewed at a session scheduled for Wednesday afternoon, June 24. Chairmen for the event include A. E. Rosene, production manager, St. Paul *Dispatch* and *Pioneer Press;* John Barron, production manager, La Salle (Ill.) *News-Tribune*, and George Kunz, production manager, South Bend (Ind.) *Tribune*.

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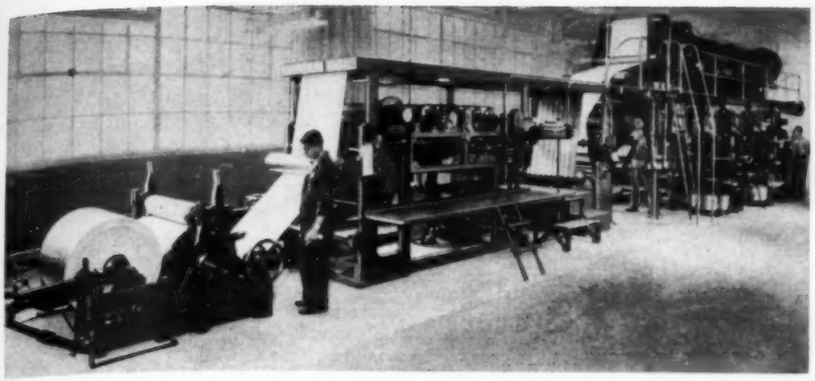

Adds Cerutti Press—A 36 in. wide four color Cerutti Model America rotogravure press was recently installed at Strawberry-Hill Press, Long Island City, N. Y., reports Parsons & Whittemore Graphic Corp. The press, which will be used primarily for printing paper and foil, food, candy and cigarette wraps, is equipped with duplex turnover unwind, surface rewind, variable size sheeter, extended drier and web tension control.

For the third consecutive year a composing room machinists' session will be held on Sunday evening preceding the official Monday opening session. This year's meeting will be moderated by Harvey Schieber, mechanical superintendent, Copley Los Angeles Newspapers. He will be assisted by six well known men in the field, who will give short presentations on timely subjects in composing room maintenance.

A ladies' program is again being planned under the direction of Mrs. Marie Weiskittel, wife of Earl Weiskittel, pressroom superintendent, Youngstown (O.) *Vindicator*. Arrangements will include a card party, luncheon, an informal brunch and a visit to one of Chicago's television sudios where Fran Allison will act as hostess. There will also be ample time for shopping tours.

More information about the conference can be obtained from Richard E. Lewis, manager, Mechanical Dept., American Newspaper Publishers Assoc., 750 Third Ave., New York 17, N. Y.

Fifth District Craftsmen Present Technical Program

Representatives from the 18 clubs in the Fifth District of the Intl. Craftsmen's Assoc., plus guests and visitors, are expected to attend the 1959 Conference to be held at Hotel Miami, Dayton, O., May 22-23.

General Chairman Howard Massman reports that an excellent technical program has been planned. Dominating the program will be three simultaneous clinics on *Letterpress, Offset* and *Screen Process —Today and Tomorrow*. Alan S. Holiday will present a paper on photocomposition, while Phil C. Evanoff, Mead Corporation, will discuss printing papers.

At the Saturday luncheon, J. Homer Winkler will be the speaker.

Inquiries regarding registration should be sent to: Carl H. Harner, The Egry Register Co., 429 E. Monument Ave., Dayton 2, O.

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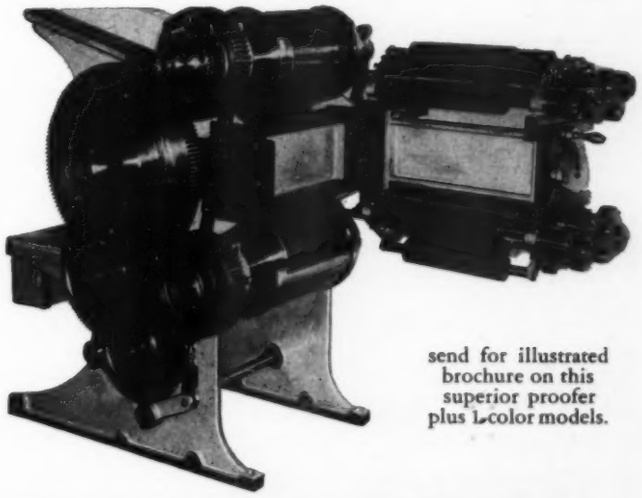

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ADVERTISERS' INDEX

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PAUL B. HOLDER, Advertising and Promotion, 1276 West Third St., Cleveland 13, O. Phone PRospect 1-0088.

WILLIAM L. OSBORN, Eastern Advertising Representative, 2709 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Advertising Representative, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6467.

WM. A. AYRES, West Coast Representative, 233 Sansome St., San Francisco 4, Calif. Phone YUkon 6-2981.

JACK DeBAR SMITH, Wm. A. Ayres Co., 5880 Hollywood Blvd., Hollywood 28, Calif. Phone HOllywood 2-1133.

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Newsday Now Prints Well From Packless Mat Plates

Newsday, the Long Island (N.Y.) tabloid, recently experienced reproduction problems in connection with stereotype plates cast from packless mats. The packless mat is a comparatively new development in newspaper printing.

As frequently happens with something new and different, teething troubles occurred. Some of the plates cast from the packless mats printed unevenly. Others, especially on second impression, did not print.

Newsday operates with nine Goss

Carlton Schwanner, maintenance foreman, Long Island (N.Y.) *Newsday*, inspects press blanket which helped solve reproduction problems in connection with use of plates cast from packless mats.

Headliner press units and ten Wood press units. The presses normally are run at 45,000 papers per hr. Three days a week, a 144 page edition is produced. *Newsday's* paid circulation is said to be above the 300,000 mark.

One of the press units produced good print with all plates cast from the packless mats. Carlton Schwanner, maintenance foreman, then applied the same type of blanket on a number of other units and obtained better results. As a result, every blanket on the presses was replaced.

The blanket combination consists of a Vulcan No. 67 Nonfelt, 0.083 in. ga., together with a No. 76 Vulcan cork underpacking, 0.062 in. ga., adding up to 0.145 in.

Selection of a press blanket, it is said, usually is dependent upon a change in technique somewhere along the production line. An important factor in blanket selection is press speed. Other factors also play a role, such as type of press, type of plate, mechanical features, even the type of mat used.

"Of course," says Schwanner, "much depends on the personal experience of the pressman. Someone else may get equally good results with another type and gauge of blanket combination."

IAE&S Film Now Available

The Intl. Assoc. of Electrotypers & Stereotypers, Inc. is now offering an educational sound and color film entitled, *The Electrotype—The Precision Letterpress Printing Plate.* It is also available in black and white for television showing on local stations. The film runs 27 min. long. For further information contact the Intl. Assoc. of Electrotypers & Stereotypers, Inc., 758 Leader Building, Cleveland 14. The telephone number is MAin 1-8509.

Craftsmen Scholarship Fund

Plans to sponsor a yearly scholarship fund of $1000 have been approved by the North Shore (Ill.) Craftsmen's Club. The scholarship will be awarded each year to a deserving young man from the North Shore area to enable him to attend the college of his choice and specialize in any phase of the Graphic Arts.

Photomechanics and Printing

By J. S. Mertle and Gordon L. Monsen

Two authorities have pooled their knowledge in producing a technical book to cover every phase of platemaking and presswork in Graphic Arts reproduction processes.

Valuable source of information for all printing plant and production managers, superintendents and departmental foremen.

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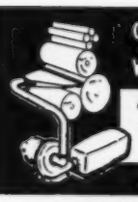

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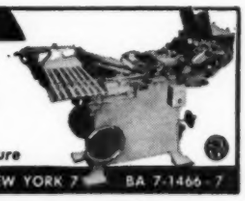

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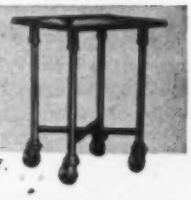

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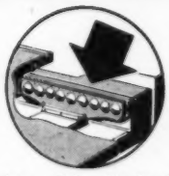

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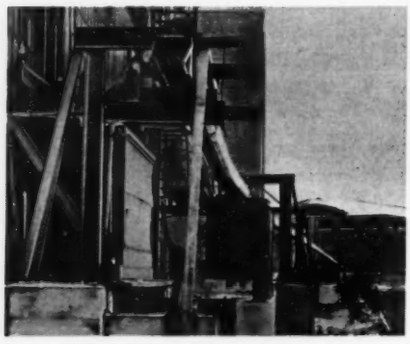
The halftones and type on this page have been printed directly from an experimental Du Pont photopolymer plate prepared by E. I. du Pont de Nemours & Co., Inc. The plate was woodblock mounted and run on a flatbed letterpress.

Philadelphia's Seal of Approval—Majestic Press, Inc., Philadelphia, has been presented a City of Philadelphia Tribute in recognition of its part in establishing the city as a major printing center. Left to right, are, Abe Rosen, city representative; Bernard Green, Majestic executive vice president, and Jack Green, president.

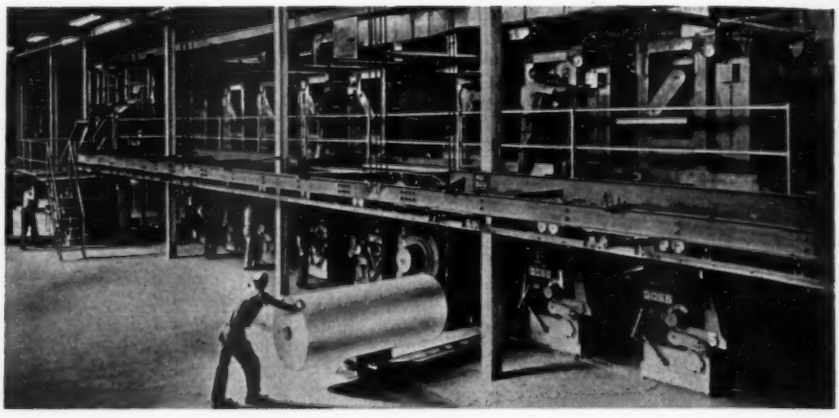
Third Miehle Offset for Dallas Firm—Robert Wilmans Printer, Inc., Dallas, has installed a new Miehle 25 offset press, the third Miehle offset for the company. Left to right, are, A. W. Hudgins, jr., pressman; D. H. Moore, Miehle representative, and Robert Wilmans, jr., president, inspecting one of the first sheets off the press.

GRAPHIC VIEWS

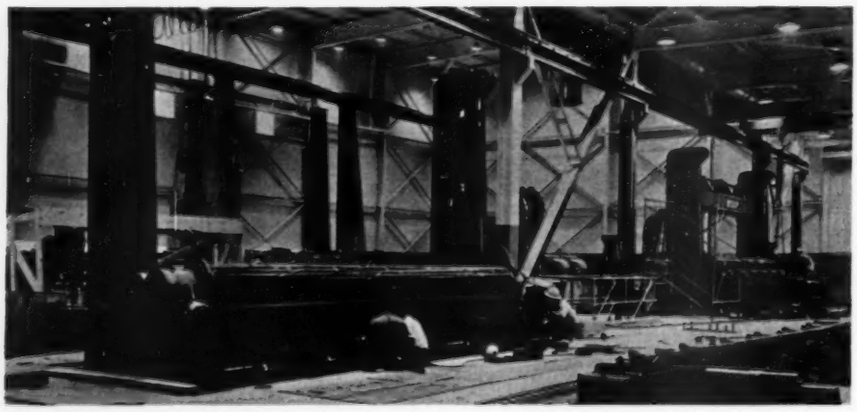
of the Printing Industry



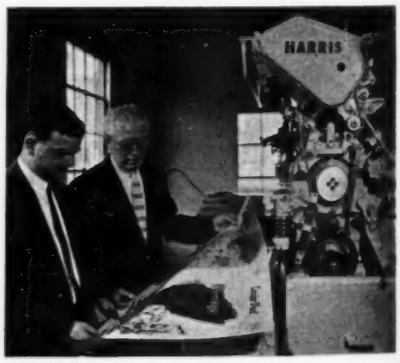
Monorail System Transports Paper Rolls—A Monorail system which enables transportation of paper rolls up to 2 T. weight has been installed at Cuneo Press, Chicago. The system, engineered by Autoquip Corporation, is designed to deliver huge paper rolls from Cuneo's paper warehouse to its gravure printing plant. The entire operation is said to be automatic.



Magazine Publisher Purchases Goss Rotogravure Press—A 12 unit Goss rotogravure press was recently put into operation at the Memphis, Tenn. plant of the Alco-Gravure Div., Publication Corporation. The press, said to feature the widest web ever used for magazine production, 94½ in., is used primarily to print *This Week Magazine* for various Southern newspapers. Built by Goss Company, Div. Miehle-Goss-Dexter, Inc., it is reported the press will produce 50,000 stitched 56 page signatures per hr.



Giant Rewinders for New Crown Zellerbach Mill—Large tension control rewinders are being erected at Crown Zellerbach Corp.'s new paper mill at St. Francisville, La. Pictured in background are vertical frames for what is reported to be world's largest supercalender stacks. The plant will house facilities for manufacturing the recently introduced Level/Smooth papers. It will be equipped with a Delta King paper coating machine, measuring 500 ft. long and 20½ ft. wide.



First Run on New Harris Press—A 16 page weekly newspaper was the first job to be run on this Harris 23 in. by 36 in. single color offset press installed at Alfred Meyers Lithographers, Inc., Medina, O. Inspecting the run are David Whitacre, left, Harris sales representative, and Alfred Meyers, owner-president of the firm.

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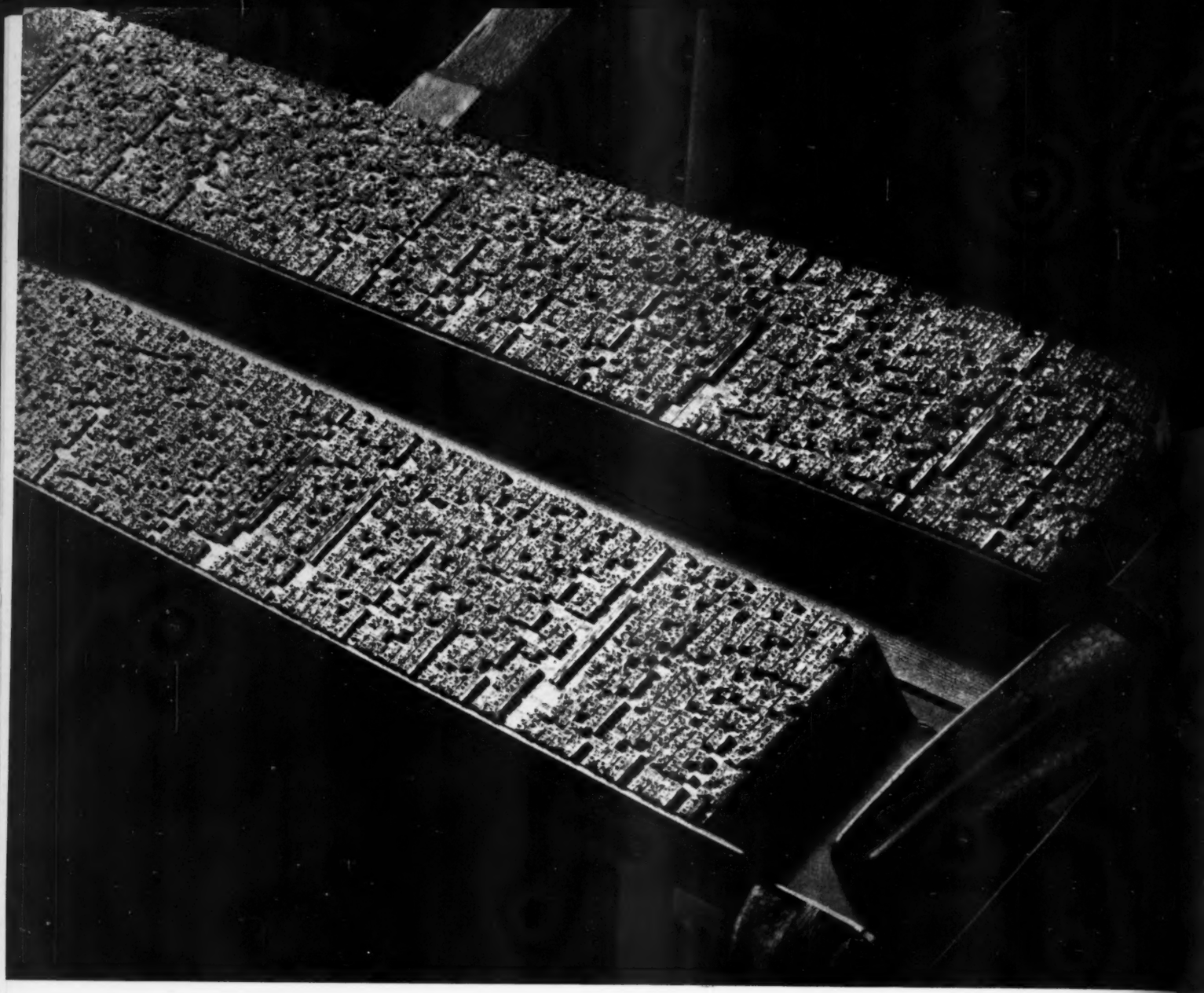

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